DOCUMENT RESUME

ED 443 054 CG 030 131

AUTHOR	Cook, Paddy; Davis, Carolyn; Howard, Deborah L.; Kimbrough, Phyllis; Nelson, Anne; Paul, Michelle; Shuman, Deborah; Brooks, Margaret K.; Dogoloff, Mary Lou; Vitzthum, Virginia; Hayws, Elizabeth
TITLE	Substance Abuse among Older Adults. Treatment Improvement Protocol (TIP) Series 26.
INSTITUTION	Substance Abuse and Mental Health Services Administration (DHHS/PHS), Rockville, MD. Center for Substance Abuse Treatment.
REPORT NO	SMA-98-3179
PUB DATE	1998-00-00
NOTE	191p.; For other documents in the TIP Series, see CG 030 099-103 and CG 030 130-134.
CONTRACT	270-95-0013
AVAILABLE FROM	National Clearinghouse for Alcohol and Drug Information, P.O. Box 2345, Rockville, MD 20847-2345. Tel: 800-729-6686 (Toll Free).
PUB TYPE	Guides - Non-Classroom (055) -- Information Analyses (070) -- Tests/Questionnaires (160)
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	*Alcohol Abuse; Behavior Modification; Counseling; *Counselor Training; *Drug Rehabilitation; *Gerontology; Intervention; Mental Health; Motivation; *Older Adults; *Substance Abuse
IDENTIFIERS	Nonprescription Drugs; Prescription Drugs; Solution Focused Brief Therapy

ABSTRACT

As alcohol and other drug disorders become acknowledged as major problems, the need increases for current information on the scope of the problem and appropriate treatment. This TIP serves to educate treatment providers with information about older adults who, in general, are more likely to hide their substance abuse, less likely to seek professional help, and mistake symptoms of substance abuse for another ailment. It brings together literature on substance abuse and gerontology to recommend best practices for identifying, screening, assessing, and treating alcohol, prescription drugs, and other medication abuse among people age 60 and older. Brief intervention is recommended as the first step of treatment, followed by motivational interviewing, and intervention. Brief interventions may include motivation for change strategies, patient education, assessment and direct feedback, contracting and goal setting, and behavioral modification techniques. Treatment programs take a holistic approach since a number of interrelated emotional, social, medical, and spiritual problems characterize older adults' experiences with substance abuse. It also includes information on cognitive-behavioral, group, individual, and family therapy approaches to treatment. Appendixes include: "Legal and Ethical Issues," "Tools," "Bibliography," "Resource Panel," and "Field Reviewers." (Contains 19 figures and approximately 400 resources.) (JDM)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 443 054

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Substance Abuse and Mental Health Services Administration

Substance Abuse and Mental Health Services Administration

Center for Substance Abuse Treatment

Substance Abuse Among Older Adults

Treatment Improvement Protocol (TIP) Series

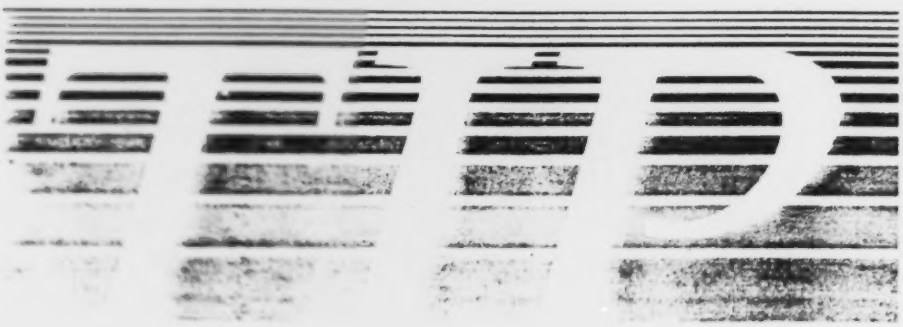
26

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.



CG 030 131

ST COPY AVAILABLE

RESOURCES FOR PROVIDERS

American Association of Retired Persons
601 E St., NW
Washington, DC 20049
202-434-2277
202-434-2562 (fax)
www.aarp.org

National Center on Addiction and
Substance Abuse at Columbia University
152 West 57th St.
New York, NY 10019
212-841-5200
212-956-8020 (fax)
www.casacolumbia.org

Join Together
441 Stuart St.
Boston, MA 02116
617-437-1500
617-437-9394 (fax)
www.jointogether.org

National Aging Information Center
U.S. Administration on Aging
330 Independence Ave., SW, Rm. 4656
Washington, DC 20201
202-619-7501
202-401-7620 (fax)
202-401-7575 (TTY)
www.ageinfo.org

DEPARTMENT OF
HEALTH & HUMAN SERVICES

Public Health Service
Substance Abuse and Mental Health
Services Administration
Rockville MD 20857

Official Business
Penalty for Private use $300

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 945 ROCKVILLE, MD

POSTAGE WILL BE PAID BY ADDRESSEE

Substance Abuse and Mental Health
Services Administration
Center for Substance Abuse Treatment-Publications
Rockwall II Building, Suite 618
5600 Fishers Lane
Rockville, MD 20852-9949

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BEST COPY AVAILABLE

RESOURCES FOR PROVIDERS

National Clearinghouse for Alcohol and Drug Information (NCADI)
P.O. Box 2345
Rockville, MD 20847-2345
1-800-729-6686
301-468-2600 (local calls)
301-468-6433 (fax)
1-800-487-4889 (TTD)
www.health.org

National Council on the Aging
409 3rd St., SW, Suite 200
Washington, DC 20024
202-479-1200
202-470-0735 (fax)
www.ncoa.org

National Institute on Aging
Public Information Office
Bldg. 31, Rm. 5C27
31 Center Dr., MSC 2292
Bethesda, MD 20892-2292
301-496-1759
1-800-222-2225
1-800-222-4225 (TTY)
www.nih.gov/nia/health/health.htm

BEST COPY AVAILABLE

Please mail this registration form to receive notice of future publications

Substance Abuse Among Older Adults

Please indicate your field ☐ Administrator ☐ Clinician ☐ Counselor ☐ Researcher ☐ Other _____

Name: _____ Title: _____

Organization: _____

Address: _____

Phone: ( ) _____ Fax: ( ) _____ E-mail _____

How did you obtain this TIP? ☐ Was sent a copy ☐ Ordered from NCADI

☐ Obtained from professional meeting ☐ Other _____

Rate this TIP on the following characteristics

The TIP is informative	No	1	2	3	4	5	Yes
The TIP is understandable	No	1	2	3	4	5	Yes
The TIP is comprehensive	No	1	2	3	4	5	Yes
The TIP is well grounded in research and scholarship	No	1	2	3	4	5	Yes
This TIP will be useful in my work	No	1	2	3	4	5	Yes

How will you use this TIP? (check all that apply) ☐ Personal reference ☐ Audit of practice standards

☐ Formal/in-service training ☐ Community education ☐ Other

What topics would you suggest for future TIPs?

_____

_____

_____

Substance Abuse Among Older Adults

Treatment Improvement Protocol (TIP) Series

26

Frederic C. Blow, Ph.D.

Consensus Panel Chair

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment

Rockwall II, 5600 Fishers Lane
Rockville, MD 20857

This publication is part of the Substance Abuse Prevention and Treatment Block Grant technical assistance program. All material appearing in this volume except that taken directly from copyrighted sources is in the public domain and may be reproduced or copied without permission from the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Treatment (CSAT) or the authors. Citation of the source is appreciated.

This publication was written under contract number ADM 270-95-0013. Sandra Clunies, M.S., I.C.A.D.C., served as the CSAT Government project officer. Writers were Paddy Cook, Carolyn Davis, Deborah L. Howard, Phyllis Kimbrough, Anne Nelson, Michelle Paul, Deborah Shuman, Margaret K. Brooks, Esq., Mary Lou Dogoloff, Virginia Vitzthum, and Elizabeth Hayes. Special thanks go to Roland M. Atkinson, M.D.; David Oslin, M.D.; Edith Gomberg, Ph.D.; Kristen Lawton Barry, Ph.D.; Richard E. Finlayson, M.D.; Mary Smolenski, Ed.D., C.R.N.P.; MaryLou Leonard; Annie Thornton; Jack Rhode; Cecil Gross; Niyati Pandya; Mark A. Meschter; and Wendy Carter for their considerable contributions to this document.

The opinions expressed herein are the views of the Consensus Panel members and do not reflect the official position of CSAT, SAMHSA, or the U.S. Department of Health and Human Services (DHHS). No official support or endorsement of CSAT, SAMHSA, or DHHS for these opinions or for particular instruments or software that may be described in this document is intended or should be inferred. The guidelines in this document should not be considered substitutes for individualized patient care and treatment decisions.

DHHS Publication No. (SMA) 98-3179
Printed 1998

Contents

What Is a TIP? vii

Editorial Advisory Board ix

Consensus Panel xi

Foreword xiii

Executive Summary and Recommendations xv

Alcohol Abuse xv
Abuse of Prescription Drugs xvi
Identification, Screening, and Assessment xvii
Treatment xix
Outcomes and Cost Issues in Alcohol Treatment xxii
Future Research xxiii

Chapter 1—Substance Abuse Among Older Adults: An Invisible Epidemic 1

The Problem Projected 2
The Problem Now 3
Older Adults' Unique Vulnerabilities 5
Barriers To Identifying and Treating Older Adults With Substance Abuse Problems 5
Summary 10

Chapter 2—Alcohol 13

Alcohol and Aging 13
Classifying Drinking Practices and Problems Among Older Adults 15
Drinking Patterns Among Older Adults 19
Risk Factors for Alcohol Abuse 22
Concomitant Substance Use 25

Chapter 3—Use and Abuse of Psychoactive Prescription Drugs and Over-the-Counter Medications 29

Evolution of Psychoactive Prescribing 29
Patterns of Use 31
Risk Factors for Misuse and Abuse of Psychoactive Drugs 31
Adverse Effects 35

Interactions With Other Drugs and With Alcohol 43

Chapter 4—Identification, Screening, and Assessment 47

Screening for Alcohol and Prescription Drug Abuse 48
Screening Instruments 53
Communicating Positive Screening Results 53
Communicating Negative Screening Results 56
Assessment 56
Special Assessments 57
Moving the Older Adult Into Treatment 63

Chapter 5—Referral and Treatment Approaches 65

Least Intensive Options 65
Specialized Treatment of Older Problem Drinkers and Substance Abusers 68
Levels of Treatment Services 69
Program Philosophy and Basic Principles 73
Treatment Approaches 77
Specialized Treatment Issues for Prescription Drug Abuse 88
Staffing Considerations 91

Chapter 6—Outcomes and Cost Issues in Alcohol Treatment for Older Adults 95

Spectrum of Alcohol Treatment Outcomes 95
Measurement of Multidimensional Outcomes for Older Adults 99
Costs of Alcohol Treatment 102
Reimbursement Issues in the Treatment of Older Adults 103
Areas Requiring Future Research 104

Appendix A—Legal and Ethical Issues 107

Autonomy and the Provider's Mission: A Dilemma 107
Privacy and Confidentiality 108
Conclusion 117
Endnotes 118

Appendix B—Tools 121

The Alcohol Use Disorders Identification Test (AUDIT) 122
Index of Activities of Daily Living (Index of ADLs) 129
Instrumental Activities of Daily Living (IADL) Scale 132
Geriatric Depression Scale (GDS) Short Form 134
The Center for Epidemiologic Studies Depression Scale (CES-D) 135
Health Screening Survey (HSS), Revised 137

Appendix C—Bibliography 141

Appendix D—Resource Panel 169

Appendix E—Field Reviewers 171

Figures

1-1: Percentage Distribution of the U.S. Population by Age: 1995, 2010, 2025 3
2-1: DSM-IV Diagnostic Criteria for Substance Abuse 16
2-2: DSM-IV Diagnostic Criteria for Substance Dependence 17
2-3: Applying DSM-IV Diagnostic Criteria to Older Adults With Alcohol Problems 18
2-4: Clinical Characteristics of Early and Late Onset Problem Drinkers 21
3-1: Continuum of Psychoactive Prescription Drug Use 32
3-2: Effect of Aging on Response to Drug Effect 34
3-3: Commonly Prescribed Anxiolytics 36
3-4: Commonly Prescribed Sedative/Hypnotics 39
3-5: Commonly Prescribed Opiate/Opioid Analgesics 43
3-6: Drug–Alcohol Interactions and Adverse Effects 44
4-1: Spokane's Gatekeeper Program 48
4-2: Physical Symptom Screening Triggers 49
4-3: The CAGE Questionnaire 53
4-4: Michigan Alcoholism Screening Test—Geriatric Version (MAST-G) 55
4-5: Comparison of Dementia and Delirium: Characteristics and Causes 60
5-1: ASAM-PPC-2 Assessment Dimensions 70
5-2: Life Changes Associated With Substance Abuse in Older Adults 76
5-3: Treatment Objectives and Approaches 78

What Is a TIP?

Treatment Improvement Protocols (TIPs) are best practice guidelines for the treatment of substance abuse, provided as a service of the Substance Abuse and Mental Health Service Administration's Center for Substance Abuse Treatment (CSAT). CSAT's Office of Evaluation, Scientific Analysis, and Synthesis draws on the experience and knowledge of clinical, research, and administrative experts to produce the TIPs, which are distributed to a growing number of facilities and individuals across the country. The audience for the TIPs is expanding beyond public and private substance abuse treatment facilities as alcohol and other drug disorders are increasingly recognized as a major problem.

The TIPs Editorial Advisory Board, a distinguished group of substance abuse experts and professionals in such related fields as primary care, mental health, and social services, works with the State Alcohol and Other Drug Abuse Directors to generate topics for the TIPs based on the field's current needs for information and guidance.

After selecting a topic, CSAT invites staff from pertinent Federal agencies and national organizations to a Resource Panel that recommends specific areas of focus as well as resources that should be considered in developing the content of the TIP. Then recommendations are communicated to a Consensus Panel composed of non-Federal experts on the topic who have been nominated by their peers. This Panel participates in a series of discussions; the information and recommendations on which they reach consensus form the foundation of the TIP. The members of each Consensus Panel represent substance abuse treatment programs, hospitals, community health centers, counseling programs, criminal justice and child welfare agencies, and private practitioners. A Panel Chair (or Co-Chairs) ensures that the guidelines mirror the results of the group's collaboration.

A large and diverse group of experts closely reviews the draft document. Once the changes recommended by these field reviewers have been incorporated, the TIP is prepared for publication, in print and online. The TIPs can be accessed via the Internet on the National Library of Medicine's home page at the URL: http://text.nlm.nih.gov. The move to electronic media also means that the TIPs can be updated more easily so they continue to provide the field with state-of-the-art information.

Although each TIP strives to include an evidence base for the practices it recommends, CSAT recognizes that the field of substance abuse treatment is evolving, and research frequently lags behind the innovations pioneered in the field. A major goal of each TIP is to convey "front-line" information quickly but responsibly. For this reason, recommendations proffered in the TIP are attributed to either Panelists' clinical experience or the literature. If there is research to support a particular approach, citations are provided.

This TIP, *Substance Abuse Among Older Adults*, presents treatment providers with much-needed information about a population that is underdiagnosed and underserved. Substance abuse, particularly of alcohol and prescription drugs, often goes undetected among adults over 60 in part due to societal reasons—older adults tend to be ashamed about drinking or drug problems and see them as a moral failing. Providers, for their part, may confuse symptoms of substance use disorders with age-related changes. Because so much of older adults' substance abuse is never even identified, this TIP is aimed at not only substance abuse treatment providers but also primary care clinicians, social workers, senior center staff, and anyone else who has regular contact with older adults.

The TIP discusses the relationship between aging and substance abuse and offers guidance on identifying, screening, and assessing not only substance abuse but also disorders such as dementia and delirium that can mask or mimic an alcohol or prescription drug problem. Practical accommodations to treatment for older adults and a discussion of how to assess outcomes and treat within a managed care context round out the document.

Other TIPs may be ordered by contacting the National Clearinghouse for Alcohol and Drug Information (NCADI), (800) 729-6686 or (301) 468-2600; TDD (for hearing impaired), (800) 487-4889.

Editorial Advisory Board

Karen Allen, Ph.D., R.N., C.A.R.N.
President of the National Nurses Society on Addictions
Associate Professor
Department of Psychiatry, Community Health, and Adult Primary Care
University of Maryland
School of Nursing
Baltimore, Maryland

Richard L. Brown, M.D., M.P.H.
Associate Professor
Department of Family Medicine
University of Wisconsin School of Medicine
Madison, Wisconsin

Dorynne Czechowicz, M.D.
Associate Director
Medical/Professional Affairs
Treatment Research Branch
Division of Clinical and Services Research
National Institute on Drug Abuse
Rockville, Maryland

Linda S. Foley, M.A.
Former Director
Project for Addiction Counselor Training
National Association of State Alcohol and Drug Directors
Washington, D.C.

Wayde A. Glover, M.I.S., N.C.A.C. II
Director
Commonwealth Addictions Consultants and Trainers
Richmond, Virginia

Pedro J. Greer, M.D.
Assistant Dean for Homeless Education
University of Miami School of Medicine
Miami, Florida

Thomas W. Hester, M.D.
Former State Director
Substance Abuse Services
Division of Mental Health, Mental Retardation and Substance Abuse
Georgia Department of Human Resources
Atlanta, Georgia

Gil Hill
Director
Office of Substance Abuse
American Psychological Association
Washington, D.C.

Douglas B. Kamerow, M.D., M.P.H.
Director
Office of the Forum for Quality and Effectiveness in Health Care
Agency for Health Care Policy and Research
Rockville, Maryland

Stephen W. Long
Director
Office of Policy Analysis
National Institute on Alcohol Abuse and Alcoholism
Rockville, Maryland

Richard A. Rawson, Ph.D.
Executive Director
Matrix Center
Los Angeles, California

Ellen A. Renz, Ph.D.
Former Vice President of Clinical Systems
MEDCO Behavioral Care Corporation
Kamuela, Hawaii

Richard K. Ries, M.D.
Director and Associate Professor
Outpatient Mental Health Services and Dual Disorder Programs
Harborview Medical Center
Seattle, Washington

Sidney H. Schnoll, M.D., Ph.D.
Chairman
Division of Substance Abuse Medicine
Medical College of Virginia
Richmond, Virginia

Consensus Panel

Chair

Frederic C. Blow, Ph.D.
Assistant Professor and Assistant Research Scientist
Department of Psychiatry
Alcohol Research Center
University of Michigan
Ann Arbor, Michigan

Workgroup Leaders

Roland M. Atkinson, M.D.
Professor
Head of Division of Geriatric Psychiatry
Department of Psychiatry
School of Medicine
Oregon Health Sciences University
Portland, Oregon

James Campbell, M.D., M.S.
Associate Professor
Acting Chairman
Department of Family Medicine
Case Western Reserve University
Medical Director
Senior Health Recovery Resources
Metrohealth Medical Center
Cleveland, Ohio

Anne M. Gurnack, Ph.D.
Professor and Director of Assessment
Department of Political Science
University of Wisconsin at Parkside
Kenosha, Wisconsin

Jeanie L. Holt, R.N.C.
Clinical Staff Nurse
Heritage Home Health and Hospice
Meredith, New Hampshire

David Oslin, M.D.
Assistant Professor
Addiction and Geriatric Psychiatry
Department of Psychiatry
University of Pennsylvania
Philadelphia, Pennsylvania

Gerald D. Shulman, M.A., F.A.C.A.T.A.
Consultant
Winter Haven, Florida

Panelists

Charles Bearcomesout
Traditional Coordinator
Traditional Component
Northern Cheyenne Recovery Center
Lame Deer, Montana

Larry W. Dupree, Ph.D.
Professor
Department of Aging and Mental Health
Florida Mental Health Institute
University of South Florida
Tampa, Florida

Richard E. Finlayson, M.D.
Consultant in Adult Psychiatry
Former Medical Director of Addiction Services
Department of Psychiatry and Psychology
Mayo Clinic
Associate Professor of Psychiatry
Mayo Medical School
Rochester, Minnesota

Lissy F. Jarvik, M.D., Ph.D.
Distinguished Physician (11L)
Psychiatry Department
West Los Angeles VA Medical Center
Professor Emerita
Department of Psychiatry and Biobehavioral Sciences
University of California-Los Angeles
Los Angeles, California

Hila Richardson, Dr.P.H.
Deputy Director
Medical Research and Practice Policy
National Center on Addiction and Substance Abuse
Columbia University
New York, New York

Marguerite T. Saunders, M.S.
Saunders Consulting Services
Albany, New York

Sharon L. Sheahan, Ph.D., C.F.N.P.
Associate Professor of Nursing
College of Nursing
University of Kentucky
Lexington, Kentucky

Erma Polly Williams, M.R.E.
Program Support Specialist
Robert Wood Johnson Medical School
University of Medicine and Dentistry of New Jersey
New Brunswick, New Jersey

Foreword

The Treatment Improvement Protocol (TIP) series fulfills SAMHSA/CSAT's mission to improve treatment of substance use disorders by providing best practices guidance to clinicians, program administrators, and payers. TIPs are the result of careful consideration of all relevant clinical and health services research findings, demonstration experience, and implementation requirements. A panel of non-Federal clinical researchers, clinicians, program administrators, and patient advocates debates and discusses their particular area of expertise until they reach a consensus on best practices. This panel's work is then reviewed and critiqued by field reviewers.

The talent, dedication, and hard work that TIPs panelists and reviewers bring to this highly participatory process have bridged the gap between the promise of research and the needs of practicing clinicians and administrators. We are grateful to all who have joined with us to contribute to advances in the substance abuse treatment field.

Nelba Chavez, Ph.D.
Administrator
Substance Abuse and Mental Health Services Administration

David J. Mactas
Director
Center for Substance Abuse Treatment
Substance Abuse and Mental Health Services Administration

Executive Summary and Recommendations

Researchers are only beginning to realize the pervasiveness of substance abuse among people age 60 and older. Until relatively recently, alcohol and prescription drug misuse, which affects as many as 17 percent of older adults, was not discussed in either the substance abuse or the gerontological literature.

The reasons for this silence are varied: Health care providers tend to overlook substance abuse and misuse among older people, mistaking the symptoms for those of dementia, depression, or other problems common to older adults. In addition, older adults are more likely to hide their substance abuse and less likely to seek professional help. Many relatives of older individuals with substance use disorders, particularly their adult children, are ashamed of the problem and choose not to address it. The result is thousands of older adults who need treatment and do not receive it.

This TIP brings together the literature on substance abuse and gerontology to recommend best practices for identifying, screening, assessing, and treating alcohol and prescription drug abuse among people age 60 and older. The Consensus Panel, whose members include researchers, clinicians, treatment providers, and program directors, supplements this research base with its considerable experience treating and studying substance abuse among older adults. Because so much of older people's substance abuse is never identified, this TIP is aimed not only at substance abuse treatment providers but also at primary care clinicians, social workers, senior center staff, and anyone else who has regular contact with older adults.

The TIP aims to advance the understanding of the relationships between aging and substance abuse and to provide practical recommendations for incorporating that understanding into practice. **The TIP's recommendations appear below in *italic type*. Those based on research evidence are marked (1), whereas those based on Panel members' clinical experience are marked (2). Citations for the former can be found in the body of the text.**

Alcohol Abuse

Physiological changes, as well as changes in the kinds of responsibilities and activities pursued by older adults, make established criteria for classifying alcohol problems often inadequate for this population.

One widely used model for understanding alcohol problems is the medical diagnostic model as defined in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV). The DSM-IV criteria for substance dependence (see Figure 2-2, p. 17) include some that do not apply

to many older adults and may lead to underidentification of drinking problems.

Diagnostic criteria for alcohol dependence are subsumed within the DSM-IV's general criteria for substance dependence. Dependence is defined as a "maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period" (American Psychiatric Association, 1994, p. 181).

The Panel recommends that clinicians consider that the DSM-IV criteria for substance abuse and dependence may not be adequate to diagnose older adults with alcohol problems. (2) See Figure 2-3 (p. 18) for an outline of special considerations.

Some experts use the model of at-risk, heavy, and problem drinking in place of the DSM-IV model of alcohol abuse and dependence because it allows for more flexibility in characterizing drinking patterns. In this classification scheme, an *at-risk drinker* is one whose patterns of alcohol use, although not yet causing problems, may bring about adverse consequences, either to the drinker or to others. As their names imply, the terms *heavy* and *problem* drinking signify more hazardous levels of consumption. Although the distinction between the terms *heavy* and *problem* is meaningful to alcohol treatment specialists interested in differentiating severity of problems among younger alcohol abusers, it is less relevant to older adults. *To differentiate older drinkers, the Panel recommends using the terms* at-risk *and* problem *drinkers only.* (2) In the two-stage conceptualization recommended by the Panel, the *problem drinker* category includes those who would otherwise fall into the *heavy* and *problem* classifications in the more traditional model as well as those who meet the DSM-IV criteria for abuse and dependence.

The Consensus Panel recommends that older men consume

- *No more than one drink per day* (1)
- *A maximum of two drinks on any drinking occasion (e.g., New Year's Eve, weddings).* (1)

The Panel recommends somewhat lower limits for women. (1)

Abuse of Prescription Drugs

People 65 and older consume more prescribed and over-the-counter medications than any other age group in the United States. Prescription drug misuse and abuse is prevalent among older adults not only because more drugs are prescribed to them but also because, as with alcohol, aging makes the body more vulnerable to drugs' effects.

Any use of drugs in combination with alcohol carries risk; abuse of these substances raises that risk, and multiple drug abuse raises it even further. For example, chronic alcoholics who use even therapeutic doses of acetaminophen may experience severe hepatoxicity. Alcohol can increase lithium toxicity and enhance central nervous system depression in persons taking tricyclic antidepressants. High doses of benzodiazepines used in conjunction with alcohol or barbiturates can be lethal. The many possible unfavorable reactions between prescription drugs and alcohol are summarized in Figure 3-6 (p. 44).

Benzodiazepines

Benzodiazepine use for longer than 4 months is not recommended for geriatric patients. (2) Furthermore, among the different benzodiazepines, longer acting drugs such as flurazepam (Dalmane) have very long half-lives and are more likely to accumulate than the shorter acting ones. They are also more likely to produce residual sedation and such other adverse effects as decreased attention, memory, cognitive function, and motor coordination, and increased falls or motor vehicle crashes. By contrast, some shorter acting benzodiazepines

such as oxazepam (Serax) and lorazepam (Ativan) have very simple metabolic pathways and are not as likely to produce toxic or dependence-inducing effects with chronic dosing. *Because of these side effects, the Panel recommends caution in selecting the most appropriate benzodiazepines for elderly patients.* (2)

Sedative/Hypnotics

Aging changes sleep architecture, decreasing the amount of time spent in the deeper levels of sleep (stages three and four) and increasing the number and duration of awakenings during the night. However, these new sleep patterns do not appear to bother most medically healthy older adults who recognize and accept that their sleep will not be as sound or as regular as when they were young. Although benzodiazepines and other sedative/hypnotics can be useful for short-term amelioration of temporary sleep problems, no studies demonstrate their long-term effectiveness beyond 30 continuous nights, and tolerance and dependence develop rapidly. *The Panel recommends that symptomatic treatment of insomnia with medications be limited to 7 to 10 days with frequent monitoring and reevaluation if the prescribed drug will be used for more than 2 to 3 weeks. Intermittent dosing at the smallest possible dose is preferred, and no more than a 30-day supply of hypnotics should be prescribed.* (1)

The Panel further recommends that clinicians teach older patients to practice good sleep hygiene rather than prescribe drugs in response to insomnia. (1) The former includes regularizing bedtime, restricting daytime naps, using the bedroom only for sleep and sexual activity, avoiding alcohol and caffeine, reducing evening fluid intake and heavy meals, taking some medications in the morning, limiting exercise immediately before retiring, and substituting behavioral relaxation techniques.

Antihistamines

Older persons appear to be more susceptible to adverse anticholinergic effects from antihistamines and are at increased risk for orthostatic hypotension and central nervous system depression or confusion. In addition, antihistamines and alcohol potentiate one another, further exacerbating the above conditions as well as any problems with balance. Because tolerance also develops within days or weeks, *the Panel recommends that older persons who live alone do not take antihistamines.* (1)

Identification, Screening, and Assessment

The Consensus Panel recommends that every 60-year-old should be screened for alcohol and prescription drug abuse as part of his or her regular physical examination. (2) However, problems can develop after the screening has been conducted, and concurrent illnesses and other chronic conditions may mask abuse. Although no hard-and-fast rules govern the timing of screening, *the Panel recommends screening or rescreening if certain physical symptoms (detailed in Chapter 4) are present or if the older person is undergoing major life changes or transitions.* (2)

Although it is preferable to use standardized screening questionnaires, friendly visitors, Meals-On-Wheels volunteers, caretakers, and health care providers also can interject screening questions into their normal conversations with older, homebound adults. Although the line of questioning will depend on the person's relationship with the older person and the responses given, *the Panel recommends that anyone who is concerned about an older adult's drinking practices try asking direct questions.* (2) (Examples of these and of less direct questions appear in Chapter 4.)

The Panel recommends that health care providers preface questions about alcohol with a link to a medical condition when screening older people. (2) For example, "I'm wondering if alcohol may be the reason why your diabetes isn't responding as it should," or "Sometimes one prescription drug can affect how well another medication is working. Let's go over the drugs you're taking and see if we can figure this problem out." *Do not use stigmatizing terms like* alcoholic *or* drug abuser *during these encounters.* (2)

Although it is important to respect the older person's autonomy, in situations where a coherent response is unlikely, collateral participation from family members or friends may be necessary. In this case, *the screener should first ask for the older adult's permission to question others on his or her behalf.* (2)

Instruments

The Panel recommends use of the CAGE Questionnaire and the Michigan Alcohol Screening Test–Geriatric Version (MAST-G) to screen for alcohol use among older adults. (1)

The Alcohol Use Disorders Identification Test (AUDIT) is recommended for identifying alcohol problems among older members of ethnic minority groups. (2)

Assessment

Substance abuse

The Panel recommends a sequential approach that looks at various dimensions of an older adult's suspected problem in stages, so that unnecessary tests are not conducted. (1)

The Panelists recommend the use of two structured assessments with older adults: the substance abuse sections of the Structured Clinical Interview for DSM-III-R (SCID) and the Diagnostic Interview Schedule (DIS) for DSM-IV. (2)

Functioning

To identify functional impairments, *the Panel recommends measuring the activities of daily living (ADLs) and the instrumental activities of daily living (IADLs)* with the instruments in Appendix B. (1) *Another useful instrument is the SF-36,* a 36-item self-report questionnaire that measures health-related quality of life, including both ADLs and IADLs. (1)

Cognitive dysfunction

Patients who have been medically detoxified should not be screened for cognitive dysfunction until several weeks after detoxification is completed, because a patient not fully recovered from detoxification may exhibit some reversible cognitive impairment. (2)

The Panel recommends use of the Orientation/Memory/Concentration Test (1), which is simple and can be completed in the office. *The Folstein Mini-Mental Status Exam (MMSE) is an acceptable alternative* (1), although it can be insensitive to subtle cognitive impairments among older problem drinkers who have recently attained sobriety (past 30–60 days). The MMSE is weak on visual–spatial testing, which is likely to show some abnormality in many recent heavy drinkers. *The draw-a-clock task is a good additional task to complement the MMSE.* (1) *The Neurobehavioral Cognitive Status Examination, which includes screening tests of abstract thinking and visual memory (not measured on the MMSE), is also recommended for assessing mental status in this population.* (1)

The Confusion Assessment Method (CAM) is widely used as a brief, sensitive, and reliable screening measure for detecting delirium. (1) *The Panel recommends that a positive delirium screen be followed by careful clinical diagnostics based on DSM-IV criteria and that any associated cognitive impairment be followed clinically using the MMSE.* (1)

Medical status

The Panel recommends that initial medical assessment of older persons should routinely include screening for visual and auditory problems, and any problems discovered should be corrected as quickly as

possible. (2) To assess the medication use of older adults, *the Panel recommends the "brown bag approach." The practitioner can ask older adults to bring every medication they take in a brown paper bag, including over-the-counter and prescription medications, vitamins, and herbs.* (1)

Sleep disorders

The Panel recommends that sleep history be recorded in a systematic way in order to both document the changes in sleep problems over time and to heighten the awareness of sleep hygiene. (2)

Depression

The Geriatric Depression Scale (GDS) and the Center for Epidemiological Studies Depression Scale (CES-D), reproduced in Appendix B, have been validated in older age groups although not specifically in older adults with addiction problems. *The Panel recommends the CES-D for use in general outpatient settings as a screen for depression among older patients.* (1)

Treatment

The Consensus Panel recommends that the least intensive treatment options be explored first with older substance abusers. (1) These initial approaches, which can function either as pretreatment strategy or treatment itself, are brief intervention, intervention, and motivational counseling. They may be sufficient to address the problem; if not, they can help move a patient toward specialized treatment.

The Consensus Panel recommends that every reasonable effort be made to ensure that older substance abusers, including problem drinkers, enter treatment. *Brief intervention is the recommended first step, supplemented or followed by intervention and motivational interviewing.* (1) Because many older problem drinkers are ashamed about their drinking, intervention strategies need to be nonconfrontational and supportive.

Conducting Brief Interventions

A brief intervention is one or more counseling sessions, which may include motivation for change strategies, patient education, assessment and direct feedback, contracting and goal setting, behavioral modification techniques, and the use of written materials such as self-help manuals. *An older adult-specific brief intervention should include the following steps* (2):

1. Customized feedback on screening questions relating to drinking patterns and other health habits such as smoking and nutrition.
2. Discussion of types of drinkers in the United States and where the patient's drinking patterns fit into the population norms for his or her age group.
3. Reasons for drinking. This is particularly important because the practitioner needs to understand the role of alcohol in the context of the older patient's life, including coping with loss and loneliness.
4. Consequences of heavier drinking. Some older patients may experience problems in physical, psychological, or social functioning even though they are drinking below cutoff levels.
5. Reasons to cut down or quit drinking. Maintaining independence, physical health, financial security, and mental capacity can be key motivators in this age group.
6. Sensible drinking limits and strategies for cutting down or quitting. Strategies that are useful in this age group include developing social opportunities that do not involve alcohol, getting reacquainted with hobbies and interests from earlier in life, and pursuing volunteer activities, if possible.
7. Drinking agreement in the form of a prescription. Agreed-upon drinking limits that are signed by the patient and the practitioner are particularly effective in changing drinking patterns.

8. Coping with risky situations. Social isolation, boredom, and negative family interactions can present special problems in this age group.
9. Summary of the session.

If the older problem drinker does not respond to the brief intervention, two other approaches—intervention and motivational interviewing—should be considered.

Intervention

In an *intervention*, several significant people in a substance-abusing patient's life confront the patient with their firsthand experiences of his or her drinking or drug use. The formalized intervention process includes a progressive interaction by the counselor with the family or friends for at least 2 days before meeting with the patient.

The Panel recommends the following modifications to interventions for older patients. No more than one or two relatives or close associates should be involved along with the health care provider; having too many people present may be emotionally overwhelming or confusing for the older person. *Inclusion of grandchildren is discouraged,* because many older alcoholics resent their problems being aired in the presence of much younger relatives. (2)

Motivational Counseling

Motivational counseling acknowledges differences in readiness and offers an approach for "meeting people where they are" that has proven effective with older adults. (1) An understanding and supportive counselor listens respectfully and accepts the older adult's perspective on the situation as a starting point, helps him or her to identify the negative consequences of drinking and prescription drug abuse, helps him or her shift perceptions about the impact of drinking or drug-taking habits, empowers him or her to generate insights about and solutions for his or her problem, and expresses belief in and support for his or her capacity for change. Motivational counseling is an intensive process that enlists patients in their own recovery by avoiding labels, avoiding confrontation (which usually results in greater defensiveness), accepting ambivalence about the need to change as normal, inviting clients to consider alternative ways of solving problems, and placing the responsibility for change on the client.

Detoxification

Some older patients should be withdrawn from alcohol or from prescription drugs in a hospital setting. Medical safety and removal from continuing access to alcohol or the abused drugs are primary considerations in this decision.

Indicators that inpatient hospital supervision is needed for withdrawal from a prescription drug include the following (2):

- A high potential for developing dangerous abstinence symptoms such as a seizure or delirium because the dosage of a benzodiazepine or barbiturate has been particularly high or prolonged and has been discontinued abruptly or because the patient has experienced these serious symptoms at any time previously
- Suicidal ideation or threats
- The presence of other major psychopathology
- Unstable or uncontrolled comorbid medical conditions requiring 24-hour care or parenterally administered medications (e.g., renal disease, diabetes)
- Mixed addictions, including alcohol
- A lack of social supports in the living situation or living alone with continued access to the abused drug(s).

In general, *the Panel recommends that the initial dose of a drug for suppression and management of withdrawal symptoms should be one-third to one-half the usual adult dose, sustained for 24 to 48 hours to*

observe reactions, and then gradually tapered with close attention to clinical responses. (1)

Treatment Settings

The Panel recommends that patients who are brittle, frail, acutely suicidal, or medically unstable or who need constant one-on-one monitoring receive 24-hour primary medical/psychiatric/nursing inpatient care in medically managed and monitored intensive treatment settings. (2)

As part of outpatient treatment, *the Panel recommends drawing the physician into the treatment planning process and enrolling him or her as a player in the recovery network.* (2)

The Panel also recommends serving older people who are dependent on psychoactive prescription drugs in flexible, community-oriented programs with case management services rather than in traditional, stand-alone substance abuse treatment facilities with standardized components. (2)

Treatment Approaches

The Panel recommends incorporating the following six features into treatment of the older alcohol abuser (1):

- Age-specific group treatment that is supportive and nonconfrontational and aims to build or rebuild the patient's self-esteem
- A focus on coping with depression, loneliness, and loss (e.g., death of a spouse, retirement)
- A focus on rebuilding the client's social support network
- A pace and content of treatment appropriate for the older person
- Staff members who are interested and experienced in working with older adults
- Linkages with medical services, services for the aging, and institutional settings for referral into and out of treatment, as well as case management.

Building from these six features, *the Consensus Panel recommends that treatment programs adhere to the following principles* (2):

- Treat older people in age-specific settings where feasible
- Create a culture of respect for older clients
- Take a broad, holistic approach to treatment that emphasizes age-specific psychological, social, and health problems
- Keep the treatment program flexible
- Adapt treatment as needed in response to clients' gender.

To help ensure optimal benefits for older adults, *the Consensus Panel recommends that treatment plans weave age-related factors into the contextual framework of the American Society of Addiction Medicine (ASAM) criteria.* (2)

The Consensus Panel recommends the following general approaches for effective treatment of older adult substance abusers (2):

- Cognitive–behavioral approaches
- Group-based approaches
- Individual counseling
- Medical/psychiatric approaches
- Marital and family involvement/family therapy
- Case management/community-linked services and outreach.

The Panel recommends that cognitive–behavioral treatment focus on teaching skills necessary for rebuilding the social support network; self-management approaches for overcoming depression, grief, or loneliness; and general problem solving. (1)

Within treatment groups, *the Panel recommends that older clients should get more than one opportunity to integrate and act on new information.* (2) For example, information on bereavement can be presented in an educational session, then reinforced in therapy. To help participants integrate and understand material, *it may be helpful to expose them to all units of information twice.* (2)

Older people in educational groups can receive, integrate, and recall information better if they are given a clear statement of the goal and purpose of the session and an outline of the

content to be covered. The leader can post this outline and refer to it throughout the session. The outline may also be distributed for use in personal note-taking and as an aid in review and recall. *Courses and individual sessions should be conceived as building blocks that are added to the base of the older person's life experience and needs. Each session should begin with a review of previously presented materials.* (2)

Groups should accommodate clients' sensory decline and deficits by maximizing the use of as many of the clients' senses as possible. *The Panel recommends use of simultaneous visual and audible presentation of material, enlarged print, voice enhancers, and blackboards or flip charts.* (2) It is important to recognize clients' physical limitations. *Group sessions should last no longer than about 55 minutes. The area should be well lighted without glare; and interruptions, noise, and superfluous material should be kept to a minimum.* (2)

The Panel recommends that counselors providing individual psychotherapy treat older clients in a nonthreatening, supportive manner and assure the client that they will honor the confidentiality of the sessions. (2)

Medications used to modify drinking behavior in older adults must take into account age- and disease-related increases in vulnerability to toxic drug side effects, as well as possible adverse interactions with other prescribed medications. *Disulfiram (Antabuse) is not generally recommended by the Panel for use in older patients because of the hazards of the alcohol–disulfiram interaction, as well as the toxicity of disulfiram itself.* (1) Of the other pharmacotherapies for alcohol abuse, naltrexone (ReVia) is well tolerated by older adults and may reduce drinking relapses. (1)

Depression for several days or longer immediately after a prolonged drinking episode does not necessarily indicate a true comorbid disorder or the need for antidepressant treatment in most cases, but *when depressive symptoms persist several weeks following cessation of drinking, specific antidepressant treatment is indicated.* (1)

The advantages of quitting smoking are clear, even in older adults. *The Panel recommends that efforts to reduce substance abuse among older adults also include help in tobacco smoking cessation.*

Staffing Considerations

The Consensus Panel recommends that the following principles guide staffing choices in substance abuse treatment programs (2):

- Whenever possible, employ staff who have completed training in gerontology
- Employ staff who like working with older adults
- Provide training in empirically demonstrated principles effective with older adults to all staff who will interact with these clients.

Panel members believe that any program that treats even a few older adults should have at least one staff person who is trained in the specialization of gerontology within his or her discipline. This training should consist of at least a graduate certificate program (6- to 12-month) in the subfield of aging commonly called social gerontology. Staff with professional degrees should have a specialization in gerontology, geriatrics, or psychogeriatrics.

Outcomes and Cost Issues In Alcohol Treatment

Outcome assessment is invaluable from both a management and a referral perspective. The providers of treatment, the clinicians and agencies referring patients, and patients themselves need to have information regarding the likely outcomes of treatment. Because treatment options range from brief interventions to structured outpatient and inpatient treatment programs, *the Panel recommends evaluation of outcomes at varying points in the treatment process.*

(1) Baseline data should be obtained at the beginning of the intervention or treatment; first followup evaluations should be conducted 2 weeks to 1 month after the patient leaves the inpatient setting. The literature on patients receiving substance abuse treatment indicates that 60 to 80 percent of people who relapse do so within 3 to 4 months. Therefore, *outpatient outcomes should be assessed no sooner than 3 months and possibly as long as 12 months after treatment.* (1)

The Panel recommends that outcome measurement include not only abstinence or reduced consumption but also patterns of alcohol use, alcohol-related problems, physical and emotional health functioning, and quality of life and well-being. (1) One of the most widely used measures of physical and emotional health is the Medical Outcomes Study 36-Item Short Form Health Survey (SF-36). (1) Another measure of psychological distress useful for alcohol outcomes assessment with older adults is the Symptom Checklist-90-Revised (SCL-90-R) and its abbreviated version, the Brief Symptom Inventory (BSI). (1) *For measuring quality of life, an important measure for older adults with alcohol problems, the Panel recommends the Quality of Life Interview (QLI).* (1)

Future Research

The Panel believes that future research needs to be focused in some specific areas to advance the field and to address future problems that will arise in the coming years. *Those areas are alcohol and other drug consumption, treatment, biomedical consequences, behavioral and psychological effects, and special issues.* (1)

This TIP lays a foundation that research in the above areas must build upon if providers are to meet the treatment challenges on the horizon. In particular, providers must prepare for changes in demographics and in treatment delivery. As the country's over-60 population explodes and the health care system shifts to managed care, providers must adjust accordingly. The treatment protocols outlined in this book provide a roadmap for treating this unique and growing population into the next century.

1 Substance Abuse Among Older Adults: An Invisible Epidemic

Substance abuse, particularly of alcohol and prescription drugs, among adults 60 and older is one of the fastest growing health problems facing the country. Yet, even as the number of older adults suffering from these disorders climbs, the situation remains underestimated, underidentified, underdiagnosed, and undertreated. Until relatively recently, alcohol and prescription drug misuse, which affects up to 17 percent of older adults, was not discussed in either the substance abuse or the gerontological literature (D'Archangelo, 1993; Bucholz et al., 1995; National Institute on Alcohol Abuse and Alcoholism, 1988; Minnis, 1988; Atkinson, 1987, 1990).

Because of insufficient knowledge, limited research data, and hurried office visits, health care providers often overlook substance abuse and misuse among older adults. Diagnosis may be difficult because symptoms of substance abuse in older individuals sometimes mimic symptoms of other medical and behavioral disorders common among this population, such as diabetes, dementia, and depression. Often drug trials of new medications do not include older subjects, so a clinician has no way of predicting or recognizing an adverse reaction or unexpected psychoactive effect.

Other factors responsible for the lack of attention to substance abuse include the current older cohort's disapproval of and shame about use and misuse of substances, along with a reluctance to seek professional help for what many in this age group consider a private matter. Many relatives of older individuals with substance use disorders, particularly their adult children, are also ashamed of the problem and choose not to address it. *Ageism* also contributes to the problem and to the silence: Younger adults often unconsciously assign different quality-of-life standards to older adults. Such attitudes are reflected in remarks like, "Grandmother's cocktails are the only thing that makes her happy," or "What difference does it make; he won't be around much longer anyway." There is an unspoken but pervasive assumption that it's not worth treating older adults for substance use disorders. Behavior considered a problem in younger adults does not inspire the same urgency for care among older adults. Along with the impression that alcohol or substance abuse problems cannot be successfully treated in older adults, there is the assumption that treatment for this population is a waste of health care resources.

These attitudes are not only callous, they rest on misperceptions. Most older adults can and do live independently: Only 4.6 percent of adults over 65 are nursing home or personal home care residents (Altpeter et al., 1994). Furthermore, Grandmother's cocktails *aren't* cheering her up: Older adults who "self-medicate" with alcohol or prescription drugs are

more likely to characterize themselves as lonely and to report lower life satisfaction (Hendricks et al., 1991). Older women with alcohol problems are more likely to have had a problem-drinking spouse, to have lost their spouses to death, to have experienced depression, and to have been injured in falls (Wilsnack and Wilsnack, 1995).

The reality is that misuse and abuse of alcohol and other drugs take a greater toll on affected older adults than on younger adults. In addition to the psychosocial issues that are unique to older adults, aging also ushers in biomedical changes that influence the effects that alcohol and drugs have on the body. Alcohol abuse, for example, may accelerate the normal decline in physiological functioning that occurs with age (Gambert and Katsoyannis, 1995). In addition, alcohol may elevate older adults' already high risk for injury, illness, and socioeconomic decline (Tarter, 1995).

The Problem Projected

It will be increasingly difficult for older adults' substance abuse to remain a hidden problem as the demographic bulge known as the Baby Boom approaches old age early in the next century. Census estimates predict that 1994's older adult population of 33 million will more than double to 80 million by 2050 (Spencer, 1989; U.S. Bureau of the Census, 1996). Most of that growth will occur between 2010 and 2030, when the number of adults over 65 will grow by an average of 2.8 percent annually (U.S. Bureau of the Census, 1996). In 1990, 13 percent of Americans were over 65; by 2030, that bloc will represent 21 percent of the population (U.S. Bureaus of the Census, 1996). The demographic increases among older adults are summarized below and in Figure 1-1.

Life expectancy in the United States has increased. In 1950, it was 68 years, and by 1991, it had reached 79 years for women and 72 years for men (U.S. Bureau of the Census, 1996). Not only are adults in general living longer, substance abusers are also living longer than ever before (Gomberg, 1992b). Thus, more Americans face chronic, limiting illnesses or conditions such as arthritis, diabetes, osteoporosis, and senile dementia, becoming dependent on others for help in performing their activities of daily living (U.S. Bureau of the Census, 1996).

Alcohol use was less common in the 1930s, 1940s, and 1950s than it has been since the 1960s. Many of those who are now 60 and older, influenced by prevailing cultural beliefs and Prohibition, never drank at all, and a negligible number used illicit drugs. Younger birth cohorts in this century tend to have increasingly higher rates of alcohol consumption and alcoholism (Atkinson et al., 1992). Thus, "the prevalence of alcohol problems in old age may increase, especially among women, for birth cohorts entering their 60s in the 1990s and beyond"(Atkinson and Ganzini, 1994, p. 302). A recent study in Sweden found that the male-to-female ratio among older alcohol abusers admitted for addiction treatment decreased from 7.8:1 to 3.4:1 in the span of a decade (Osterling and Berglund, 1994).

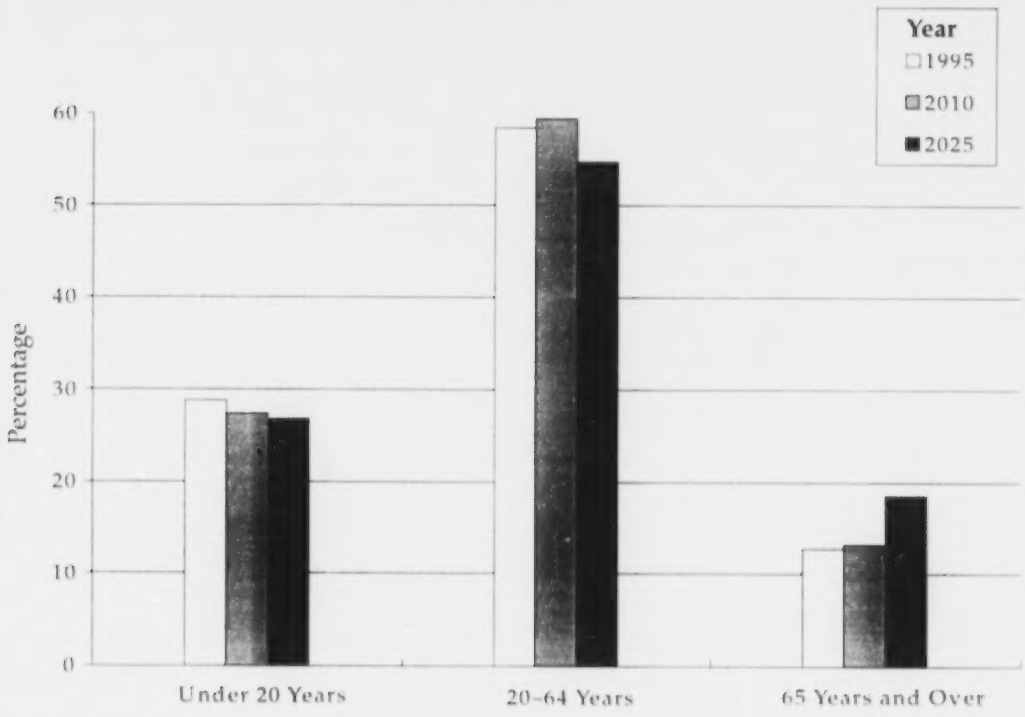
Because there is a clear relationship between early alcohol problems and the development of alcohol problems in later life, drinking among older adults is likely to become an even greater problem in the near future (Rosin and Glatt, 1971; Gomberg, 1992; Zimberg, 1974; Helzer et al., 1991a; Beresford, 1995a). Liberto and colleagues concluded that the overall increase in alcohol problems throughout the population, coupled with the aging of the Baby Boomers, suggests that the number of older adults with alcohol-related problems will rise alarmingly (Liberto et al., 1992). Taken together, these factors raise the prospect of tomorrow's health services facing a "potentially preventable 'tide' of alcohol-induced morbidity" (Saunders, 1994,

p. 801). Further research is needed on the physiological effects of marijuana on older adults, because many children of the 1960s can be expected to carry this habit into old age.

The Problem Now

Health care and social service providers who currently care for Americans age 60 and older will mainly encounter abuse or misuse of alcohol or prescribed drugs. Abuse of heroin and other opioids is rare, although some older adults misuse over-the-counter drugs that have a high alcohol content, such as cough suppressants. Many of these over-the-counter drugs negatively interact with other medications and alcohol.

Figure 1-1
Percentage Distribution of the U.S. Population by Age: 1995, 2010, and 2025



Source: U.S. Census Bureau, 1996

Alcohol Disorders: Older Adults' Major Substance Abuse Problem

Problems stemming from alcohol consumption, including interactions of alcohol with prescribed and over-the-counter drugs, far outnumber any other substance abuse problem among older adults. Community prevalence rates range from 3 to 25 percent for "heavy alcohol use" and from 2.2 to 9.6 percent for "alcohol abuse" depending on the population sampled (Liberto et al., 1992). (Chapter 2 defines levels of use and adjusts them for older adults.) A recent study found that 15 percent of men and 12 percent of women age 60 and over treated in primary care clinics regularly drank in excess of limits recommended by the National Institute on Alcohol Abuse and Alcoholism (i.e., no more than one drink per day) (Saunders, 1994; Adams et al., 1996; National Institute on Alcohol Abuse and Alcoholism, 1995).

The differences in the prevalence rates above illustrate the difficulty in identifying how widespread the current problem is. One researcher suggests that alcohol abuse among older adults is easily hidden, partly because of its similarities to other diseases common as one ages and partly because elders remind clinicians of a parent or grandparent (Beresford, 1995b). Recent studies in Australia (McInnes and Powell, 1994) and a corroboration of similar data from the United States (Curtis et al., 1989) found that clinicians recognized alcoholism in only one-third of older hospitalized patients who had the disorder. Furthermore, many of the signs and symptoms of alcohol abuse among younger populations do not apply to older adults: Most older adults are no longer in the work force, have smaller social networks, and drive less (reducing the potential for being recognized as abusing alcohol).

Chapter 2 details drinking practices and problems among older adults. Identification, screening, and assessment of alcohol and drug use—specifically targeted to this population—are discussed in Chapter 4.

Prescription Drugs

The abuse of narcotics is rare among older adults, except for those who abused opiates in their younger years (Jinks and Raschko, 1990). Prescribed opioids are an infrequent problem as well: Only 2 to 3 percent of noninstitutionalized older adults receive prescriptions for opioid analgesics (Ray et al., 1993), and the vast majority of those do not develop dependence. One study, for example, found that only 4 of nearly 12,000 patients who were prescribed morphine for self-administration became addicted (Hill and Chapman, 1989). The use of illicit drugs is limited to a tiny group of aging criminals and long-term heroin addicts (Myers et al., 1984). Although little published information exists, Panelists report that a far greater concern for drug misuse or abuse is the large number of older adults using prescription drugs, particularly benzodiazepines, sedatives, and hypnotics, without proper physician supervision (Gomberg, 1992). Older patients are prescribed benzodiazepines more than any other age group, and North American studies demonstrate that 17 to 23 percent of drugs prescribed to older adults are benzodiazepines (D'Archangelo, 1993). The dangers associated with these prescription drugs include problematic effects due to age-related changes in drug metabolism, interactions among prescriptions, and interactions with alcohol.

Unfortunately, these agents, especially those with longer half-lives, often result in unwanted side effects that influence functional capacity and cognition, which place the older person at greater risk for falling and for institutionalization (Roy and Griffin, 1990). Older users of these drugs experience more adverse effects than do younger adults, including excessive daytime sedation, ataxia, and cognitive impairment. Attention, memory,

physiological arousal, and psychomotor abilities are often impaired as well (Pomara et al., 1985), and drug-related delirium or dementia may wrongly be labeled Alzheimer's disease. Misuse of psychoactive prescription drugs is discussed in Chapter 3.

Older Adults' Unique Vulnerabilities

For the purposes of this TIP, an *older adult* is defined as a person age 60 or older. Any age cutoff is somewhat arbitrary because age-related changes vary tremendously across individuals and even within one person from body system to body system. An 80-year-old can have better health functioning than a 50-year-old, and a 70-year-old can have "the spine of an 80-year-old, a heart typical of a 60-year-old, and a central nervous system equal in functioning to an average 60-year-old" (Altpeter et al., 1994, p. 30). Although some recommendations in this TIP may apply more to adults 70 and older, some of the age-related changes that affect the body's reactions to alcohol and other drugs begin as early as 50.

The age at which such changes occur varies from person to person, but invariably they do occur. Because many of the definitions, models, and classifications of alcohol consumption levels are static and do not account for age-related physiological and social changes, they *simply do not apply to older adults*. Drinking can be medically hazardous for this group even if the frequency and amount of consumption do not warrant a formal diagnosis of alcohol abuse or dependence. Weekly quantity of drinking levels can only serve as a rough parameter in this population; it is crucial for providers to view older drinkers and drug-takers as on a spectrum and to resist placing them into rigid categories for purposes of assessment and treatment. (Diagnosis, however, may require use of those classifications, as they often are the basis for reimbursement.)

Chapter 2 examines classifications such as *at-risk*, *problem*, and *dependent* alcohol consumption patterns, which have been the focus of major diagnostic systems, particularly the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994), and reconfigures them to suit older adults' unique responses to and experiences with alcohol and drug use.

Further complicating treatment of older substance abusers is the fact that they are more likely to have undiagnosed psychiatric and medical comorbidities. According to one study, 30 percent of older alcohol abusers have a primary mood disorder (Koenig and Blazer, 1996). A thorough evaluation of all problems is essential when caring for older adults: Failure to do so will undoubtedly increase the number of false diagnoses and diminish the quality of older patients' lives (Gomberg, 1992). Physical and mental comorbidities are discussed in detail in Chapter 4.

Barriers To Identifying And Treating Older Adults With Substance Abuse Problems

The sheer number and the interconnectedness of older adults' physical and mental health problems make diagnosis and treatment of their substance abuse more complex than for other populations. That complexity contributes—directly or indirectly—to the following barriers to effective treatment:

- Ageism
- Lack of awareness
- Clinician behavior
- Comorbidity.

Ageism

The term *ageism* was coined in the mid-1960s (Butler, 1969) to describe the tendency of society to assign negative stereotypes to older adults and to explain away their problems as a function of being old rather than looking for specific medical, social, or psychological causes. In American culture, ageism reflects a personal revulsion about growing old, comprising in part fear of powerlessness, uselessness, and death. Older adults often internalize such stereotypes and thus are less likely to seek out mental health and substance abuse care (Patterson and Dupree, 1994). Ageism may result in an older adult being classified as "senile," when in reality he or she may be afflicted with specific and sometimes treatable comorbid conditions such as Alzheimer's disease, depression, multi-infarct dementia, and alcoholism.

Not only is a younger adult with comorbid conditions more likely to receive a correct diagnosis for substance abuse, but a younger patient diagnosed with, say, hypertension, will more likely be examined for underlying etiologies, including substance abuse. With older adults, providers often do not look beyond the presenting problem for which the patient is seeking care (Curtis et al., 1989). Despite caregivers' good intentions, instances of ageism also occur in congregate meal settings and in the provision of homemaker services to the homebound. Changes in eating habits, for example, may not be explored because "older people get fussy about their food." Confusion in older adults may go unchallenged because home health aides attribute it to "a bad night" or age-related "spaciness." Older patients are significantly less likely to have substance abuse problems identified during routine medical care. If a diagnosis of substance abuse is made, an older patient is less likely to have treatment recommended (Curtis et al., 1989).

Ageism is reflected in some providers' belief that older adults' quality of life will remain poor even if they are successfully treated for their substance abuse. Such lowered expectations may also be compounded by "therapeutic nihilism": Older substance abusers may be deemed not worthy of the effort involved in treating or changing behavior because "they are likely to die soon anyway."

Lack of Awareness

A second barrier to treatment is a lack of awareness of the problem that is often shared by the older substance abuser, his or her loved ones, the community, and society as a whole. A lack of awareness or denial of the signs of alcohol abuse (more common among older adults), combined with the personal or community-specific stigma of the disease, may effectively raise one or more barriers to treatment.

Stigma, shame, or denial associated with substance abuse may be related to generation, religion, gender, culture, or a combination of these and other factors. Many older adults formed their attitudes about alcohol before the 1950s, when advertising and wider accessibility helped change the use of alcohol from a moral failing to an accoutrement of postwar prosperity. If adults attribute their alcohol problems to a breakdown in morals, they are not likely to seek substance abuse treatment.

Many older adults are also very sensitive to the stigma associated with psychiatric disorders. They are much more willing to accept a medical diagnosis than a mental or psychiatric one, and they may translate this bias into a reluctance to describe mood disturbances or to acknowledge symptoms that might be interpreted as manifestations of weakness, irresponsibility, or "craziness." They may genuinely think many problems are simply related to old age or be reluctant to complain too much (Weiss, 1994). In addition, many older adults do not accept that alcohol- or other drug-related disorders are health care problems or diseases.

It may be difficult for other adults to conceive of an older person, especially a woman, as having problems with alcohol or other substances. This particular limitation can be true of an alcohol abuser's daughter or of an entire community, which may have decided that alcoholism is a youth problem. Drinking among older adults is often perceived as a pleasure they have earned and, lacking work and family responsibilities, should be allowed to enjoy: Because social drinking is an acceptable behavior, it can serve to mask a more serious drinking problem.

Clinicians' and Service Professionals' Behavior

Health care and older adult service providers may be as slow to spot a substance abuse problem as everyone else is: Despite its frequency, there is often a low index of suspicion for this problem. Even when there is the suspicion of a substance abuse disorder, the practitioner may have difficulty applying the diagnostic criteria to a wide variety of nonspecific symptoms. With a younger patient, serious physical problems (e.g., heart disease, diabetes) can be more easily ruled out, leading quickly to a diagnosis of substance abuse in the presence of certain symptoms. With an older patient, health care providers are often in a quandary—symptoms such as fatigue, irritability, insomnia, chronic pain, or impotence may be produced or influenced by substance abuse, common medical and mental disorders, or a combination of these conditions. Another clinician barrier to diagnosing alcohol problems in older adults is stereotyping. Clinicians are less likely to detect alcohol problems in women, the educated, and those with higher socioeconomic status (Moore et al., 1989).

Other barriers related to clinician behavior are noted in the literature. Keeler and colleagues studied the effect of patient age and length of physician encounter. They found that the amount of time physicians spend with a patient decreases as the age of the patient increases (Keeler et al., 1982). (Obviously, this is not due to older patients' having fewer medical complaints.) It is unlikely that abbreviated office visits are sufficient to identify an older adult's underlying problem with alcoholism.

Not only do the physician encounters become shorter, but problems related to alcohol and drugs increasingly compete for discussion time against other health problems. During a short office visit, there are many topics to cover in patient–provider discourse, ranging from renewal of multiple prescriptions to the impact of the death of a spouse. Substance abuse often ends up at the bottom of the list or is not considered at all when a patient presents with many medical or personal problems. Providers, older patients, and family members typically place higher priority on physical conditions such as heart problems and renal failure than on alcohol abuse.

Providers may also believe that older substance abusers do not benefit from treatment as much as younger patients, despite studies that have dispelled this persistent myth. Research indicates that, compared with younger patients, older adults are more likely to complete treatment (Linn, 1978; Cartensen et al., 1985) and have outcomes that are as good as or better than those of younger adults (Kashner et al., 1992; Atkinson, 1995; in press). Yet health care providers still need more education about substance abuse treatment options and success rates (see Chapter 6).

Clinicians may not know that certain drugs are habit-forming or about specific drug interactions and side effects. One diagnostic barrier is that many physicians believe alcoholics must be heavy drinkers and often miss the opportunity to intervene because their definition of problem drinking rests on amounts and frequencies that do not apply to older adults (see Chapter 2). Those treating older

substance abusers should receive training on drug-to-drug interaction, drug-to-disease interaction, drug-to-alcohol interaction, and alcohol-to-disease interaction (discussed in Chapters 2 and 3).

Comorbidity

Medical and psychiatric comorbidities present yet another challenge to the effective treatment of the older substance abuser. Comorbid conditions such as medical complications, cognitive impairment, mental disorders such as major depression, sensory deficits, and lack of mobility not only can complicate a diagnosis but can sway the provider from encouraging older patients to pursue treatment for their substance abuse problems. For example, older patients who cannot walk up stairs or drive after dark may not be encouraged to attend evening Alcoholics Anonymous (AA) meetings. Older patients may also be screened out of treatment programs because of poor cognitive tests or simply because health professionals do not think they will benefit. In addition, treatment programs may be reluctant to accept them or may not have the facilities to accommodate their special needs. Comorbid depression and anxiety pose other barriers. Although inpatient psychiatric hospitals generally have staff trained to treat dually diagnosed patients, outpatient programs may not. These programs may not accept medicated older adults with mental disorders.

Special Populations

Women, minorities, and those who are homebound, including adults with physical disabilities, confront more specific barriers to treatment.

Women

Although women constitute the majority of older adults, their treatment challenges are considered here in part because most of the research in the substance abuse field has studied male subjects. In 1994, among adults 65 to 69, there were 82 men for every 100 women. Among those 85 to 89, there were 44 men for every 100 women, and the disparity is even greater for those 90 and older (U.S. Bureau of the Census, 1996). Despite women's greater numbers, they constitute the minority of older substance abusers. There are, however, more older women living alone, and their substance abuse can be difficult to identify (Moore et al., 1989). Older women as a group conceal their drinking or drug use vigilantly because their stigma is greater than that for men. Other treatment obstacles particular to women include the following:

- Compared with men, women have less insurance coverage and supplemental income (such as a pension). Women are less likely to have worked, more likely to lose insurance coverage with the death of a spouse, and more likely to live in poverty.
- Women drink less often in public places and are therefore less likely to drive while intoxicated or engage in other behaviors that might reveal an alcohol problem.
- Many older women never learned to drive, and they are more likely to live at home alone. Overall, women are healthier and more independent but are also more isolated. They often drink alone.
- Older women are prescribed more and consume more psychoactive drugs, particularly benzodiazepines, than are men and are more likely to be long-term users of these substances (Gomberg, 1995).

Racial and ethnic minorities

Although little research has been done on older minority populations, the Panelists agreed that older minority individuals also face barriers to treatment. Recent data suggest that older members of minority groups, particularly African-Americans, may be more vulnerable to

late-life drinking than previously thought (Gomberg, 1995).

For many older minority adults in urban areas, health care is delivered in busy hospital outpatient departments or in emergency rooms. These settings further diminish the likelihood that alcohol and other drug issues will be addressed.

Language is another major issue in identifying and treating substance abuse among minority elders because many of them were first-generation immigrants who never learned English. In order to access services, these patients need an interpreter or a family member who can serve as an interpreter. This raises an additional issue: Interpreters can bias communications, adding yet another barrier to effective treatment.

Non-English-speaking minorities have also been at a disadvantage in treatment and therapy in many areas of the country. Cultural competence is crucial when the treatment provider has a different ethnic or cultural background than the client. The clinician needs some knowledge of the belief systems of the client to effectively interview and interpret responses from, for example, Native Americans. Although some progress has been made in providing culturally appropriate prevention and treatment programs for the Hispanic population, much less is available for other cultural or linguistic minorities, such as Eastern Europeans and Asians.

Homebound older adults

The barriers that prevent identification and treatment of substance abuse among all older adults are even greater for the homebound, particularly comorbidities, transportation and handicapped accessibility, isolation, and gender (over 70 percent of home care patients are women [Dey, 1996]).

Older adults are often restricted to their homes by an array of health problems that limit their mobility. Heart disease, diabetes, chronic lung diseases, and other conditions diminish older adults' ability to perform the basic activities of daily living, making it less likely they will seek treatment for their substance problems. Adults bound to their homes by physical disabilities are at particularly high risk for alcoholism.

The weakness and frail physical condition of many homebound older adults also limit mobility and transportation options beyond the problems faced by older adults in general. By definition, homebound older adults cannot get out of their homes without "considerable and taxing effort" and almost always require the assistance of another person (Health Care Financing Administration, 1997). In practical terms, this means these older adults cannot drive or take public transportation, taxicabs, or rides from friends who are also frail. They must depend on able-bodied others, who they may not want to bother in nonemergency situations. Such dependency can be embarrassing and depressing, which may trigger alcohol or drug use.

Finally, homebound older adults are often very isolated socially. Limited contacts with others may allow serious abuse to go undetected. Lack of a social support network makes these older adults even more susceptible to depression and despair.

Other Barriers to Identification and Treatment

Other barriers to treatment in the older population are

- *Transportation* (may be available to go to a hospital but not to AA or aftercare or evening programs): This is especially problematic in rural communities that lack public transportation or in poor urban communities where accessing transportation can be dangerous (Fortney et al., 1995).

- *Shrinking social support network:* Fewer friends to support them, participate in the treatment process, or take them places.
- *Time:* Despite the assumption that older adults have an excess of free time, they may well have to provide 24-hour supervision to a spouse, other relative, or friend, or have to care for grandchildren while the parent works.
- *Lack of expertise:* Few programs have specialists in geriatrics, treat many older adults, or are designed to accommodate functional disabilities such as hearing loss or ambulation problems.
- *Financial:* The structure of insurance policies can be a barrier to treatment. The carving out of mental health services from physical health services under managed care in particular can prevent older adults from receiving inpatient substance abuse treatment.

Because of the increased potential for enhanced reactions to alcohol and to alcohol in combination with other drugs, it is important that clinicians, family members, and social service providers be on the lookout for signs of problems. Communities can implement "gatekeeper" systems, wherein meter readers, credit office workers, repair personnel, postal carriers, police, apartment managers, and others watch for and report signs of depression and other psychiatric disorders (often exacerbated by substance abuse) (see Chapter 4). Suggestions for who can help move older adults into treatment and various treatment approaches are discussed in Chapter 5.

Summary

Given the scope of the problem, the literature on substance abuse problems among older adults is surprisingly sketchy. Substance abuse among older adults as a distinct subgroup with definable characteristics was first described in the research literature in 1964 (Droller, 1964). Researchers in the 1960s and 1970s were convinced that substance abuse was rare among older adults (Atkinson and Ganzini, 1994). Thus, researchers and clinicians alike widely believed that substance use disorders among this age group did not merit the attention given to drinking and drug abuse among younger adults (Bucholz et al., 1995).

Most professional service providers thought that lifelong alcohol- and other drug-addicted individuals either died early or recovered spontaneously, "maturing out" of their problems (Saunders, 1994; Vaillant et al., 1983). Older drinkers tended to be viewed "merely as survivors of a long, dissolute history of heavy alcohol use followed by predictably poor health and early demise" (Beresford, 1995b, p. 3), and alcoholism was considered predominantly a male problem, affecting four males for every female (Bucholz et al., 1995). Therefore, the typical older adult with a drinking problem was considered most often to be a man with a long history of drinking. Even as recently as 1987, the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (DSM-III-R), the standard diagnostic manual the American Psychiatric Association used at that time, stated, "In males, symptoms of alcohol dependence or abuse rarely occur for the first time after age 45" (American Psychiatric Association, 1987, p. 174).

The last decade has seen as much research as the 35 years preceding, and many misperceptions have been corrected. Yet the problem remains elusive even as it grows. Many Americans who are now young or middle-aged will carry their use and abuse of alcohol and other drugs with them into old age—and they will also live longer. Life expectancy jumped almost 30 years between 1900 and 1989, and it continues to climb. By the year 2050, one out of four Americans over age 65 will be 85 and older (U.S. Bureau of the Census, 1996). Substance use disorders, if not diagnosed

and treated, may ruin the last stage of life for countless Americans.

This TIP illuminates this invisible epidemic and advises how to treat it, combining the best of the existing literature with the years of the Consensus Panelists' experience in researching and treating older substance abusers. The Panel aims to advance the understanding of the relationships between aging and substance abuse and to provide practical recommendations for incorporating that understanding into practice.

2 Alcohol

Alcohol abuse and misuse is the major substance abuse problem among older adults. "In the United States, it is estimated that 2.5 million older adults have problems related to alcohol, and 21 percent of hospitalized adults over age 40 . . . have a diagnosis of alcoholism with related hospital costs as high as $60 billion per year" (Schonfeld and Dupree, 1995, p. 1819). In 1990, those over the age of 65 comprised 13 percent of the U.S. population; by the year 2030, older adults will account for 21 percent of the population (U.S. Bureau of the Census, 1996). This projected population explosion has serious implications for both the number of alcohol-related problems likely to occur among older adults and the subsequent costs involved in responding to them. Currently, rates for alcohol-related hospitalizations among older patients are similar to those for heart attacks (Adams et al., 1993). Those rates vary greatly by geographic location, from 19 per 10,000 admissions in Arkansas to 77 per 10,000 in Alaska.

As disturbing as these figures are, they probably represent a gross underestimation of the true problem. Studies consistently find that older adults are less likely to receive a primary diagnosis of alcoholism than are younger adults (Booth et al., 1992; Stinson et al., 1989; Beresford et al., 1988). A study of 417 patients found that house officers accurately diagnosed the disease in only 37 percent of older alcoholic patients compared with 60 percent of the younger alcoholic patients (Geller et al., 1989).

Alcohol and Aging

Despite a certain heterogeneity in drinking practices, there are substantial differences between an older and a younger adult's response to alcohol, the majority of which stem from the physiological changes wrought by the aging process.

Adults over the age of 65 are more likely to be affected by at least one chronic illness, many of which can make them more vulnerable to the negative effects of alcohol consumption (Bucholz et al., 1995).

In addition, three age-related changes significantly affect the way an older person responds to alcohol:

- Decrease in body water
- Increased sensitivity and decreased tolerance to alcohol
- Decrease in the metabolism of alcohol in the gastrointestinal tract.

As lean body mass decreases with age, total body water also decreases while fat increases. Because alcohol is water-soluble and not fat-soluble, this change in body water means that, for a given dose of alcohol, the concentration of alcohol in the blood system is greater in an older person than in a younger person. For this reason, the same amount of alcohol that previously had little effect can now cause intoxication (Smith, 1995; Vestal et al., 1977). This often results in increased sensitivity and decreased tolerance to alcohol as people age

(Rosin and Glatt, 1971). Researchers speculate that the change in relative alcohol content combined with the slower reaction times frequently observed in older adults may be responsible for some of the accidents and injuries that plague this age group (Bucholz et al., 1995; Salthouse, 1985; Ray, 1992).

The decrease in gastric alcohol dehydrogenase enzyme that occurs with age is another factor that exacerbates problems with alcohol. This enzyme plays a key role in the metabolism of alcohol that occurs in the gastric mucosa. With decreased alcohol dehydrogenase, alcohol is metabolized more slowly, so the blood alcohol level remains raised for a longer time. With the stomach less actively involved in metabolism, an increased strain is also placed on the liver (Smith, 1995).

Comorbidities

Although alcohol can negatively affect a person of any age, the interaction of age-related physiological changes and the consumption of alcohol can trigger or exacerbate additional serious problems among older adults, including

- Increased risk of hypertension, cardiac arrhythmia, myocardial infarction, and cardiomyopathy
- Increased risk of hemorrhagic stroke
- Impaired immune system and capability to combat infection and cancer
- Cirrhosis and other liver diseases
- Decreased bone density
- Gastrointestinal bleeding
- Depression, anxiety, and other mental health problems
- Malnutrition.

Other biomedical changes of aging are cognitive impairments, which are both confused with and exacerbated by alcohol use. Chronic alcoholism can cause serious, irreversible changes in brain function, although this is more likely to be seen in older adults who have a long history of alcoholism. Alcohol use may have direct neurotoxic effects leading to a characteristic syndrome called *alcohol-related dementia* (ARD) or may be associated with the development of other dementing illnesses such as Alzheimer's disease or Wernicke-Korsakoff syndrome, an illness characterized by anterograde memory deficits, gait ataxia, and nystagmus. Indeed several researchers have cast doubt on the existence of ARD as a neuropathological disease and suggest that the majority of cases of ARD are in fact Wernicke-Korsakoff syndrome (Victor et al., 1989).

Sleep patterns typically change as people age (Haponik, 1992). Increased episodes of sleep with rapid eye movement (REM), decreased REM length, decreased stage III and IV sleep, and increased awakenings are common patterns, all of which can be worsened by alcohol use. Moeller and colleagues demonstrated in younger subjects that alcohol and depression had additive effects on sleep disturbances when occurring together (Moeller et al., 1993). One study concluded that sleep disturbances, especially insomnia, may be a potential etiologic factor in the development of late-life alcohol problems or in precipitating relapse (Oslin and Liberto, 1995). This hypothesis is supported by a study demonstrating that abstinent alcoholics experienced insomnia, frequent awakenings, and REM fragmentation (Wagman et al., 1977). However, when these subjects ingested alcohol, sleep periodicity normalized and REM sleep was temporarily suppressed, suggesting that alcohol can be used to self-medicate sleep disturbances.

Positive Effects of Alcohol Consumption

Small amounts of alcohol have been shown to provide some health benefits, although abstinence is still recommended for anyone who has a history of alcoholism or drug abuse, who is taking certain medications (see Chapter 3), or

who is diagnosed with certain chronic diseases such as diabetes and congestive heart failure. Some studies, largely conducted on male samples, show that low levels of alcohol consumption (one standard drink per day or less) reduce the risks of coronary heart disease (Shaper et al., 1988). However, this cardiovascular benefit may not apply to adults already diagnosed with heart disease. Older adults in this category should not drink unless their physician says otherwise.

"An intriguing epidemiologic finding is the association of regular, but moderate, alcohol use (up to two drinks per day) with lower morbidity and mortality from coronary artery disease," especially in men, when compared with heavy alcohol users and abstainers (Atkinson and Ganzini, 1994, p. 302). "This 'U' or 'J' shaped relationship appears to be quite robust," occurring in diverse cultural and national cohorts (Atkinson and Ganzini, 1994, p. 302). That heavy drinkers have more coronary disease is to be expected, but why should abstainers have higher morbidity and mortality than moderate drinkers? One explanation may be that the abstainer group was heterogeneous in composition and may have included former alcoholics as well as others predisposed to cardiac disease (Atkinson et al., 1992). A number of other studies, including the only one reported to date that consisted of exclusively older adult subjects, likewise failed to account for this possibility in their study designs (Scherr et al., 1992).

Other analyses of abstainer groups report conflicting findings (Shaper et al., 1988; Klatsky et al., 1990). Further study is needed to determine the contributions of alcohol-induced rise in high-density lipoproteins (HDLs) (Srivastava et al., 1994; Davidson, 1989) and antioxidant effects of beverage alcohol (Artaud-Wild et al., 1993) to the association between abstinence and coronary artery disease.

Although moderate alcohol consumption has been shown to improve HDL levels in women (Fuchs et al., 1995), it also has been linked to breast cancer in postmenopausal women (Bucholz et al., 1995). More studies on the risks and benefits of alcohol consumption for older women are needed to clarify this issue.

Low levels of alcohol consumption also appear to promote and facilitate socialization among older adults, suggesting that alcohol plays an important role in community life for older adults (Gomberg, 1990). However, the health of some older adults (e.g., those with chronic conditions, those using certain medications) may be compromised by any alcohol consumption. Again, recommendations for use of alcohol should always be individualized.

Classifying Drinking Practices and Problems Among Older Adults

Physiological changes, as well as changes in the kinds of responsibilities and activities pursued by older adults, make established criteria for classifying alcohol problems largely irrelevant for this population.

Two classic models for understanding alcohol problems—the medical diagnostic model and the at-risk, heavy, and problem drinking classification—include criteria that may not adequately apply to many older adults and may lead to underidentification of drinking problems (Atkinson, 1990).

DSM-IV

Most clinicians rely on the conventional medical model defined in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994) for classifying the signs and symptoms of alcohol-related problems. The DSM-IV uses specific

criteria to distinguish between those drinkers who abuse alcohol and those who are dependent on alcohol. Figures 2-1 and 2-2 present the DSM-IV criteria, which subsume alcohol abuse indicators within the general categories of substance abuse and dependence.

Although widely used, the DSM-IV criteria may not apply to many older adults who experience neither the legal, social, nor psychological consequences specified. For example, "a failure to fulfill major role obligations at work, school, or home" is less applicable to a retired person with minimal familial responsibilities. Nor does the criterion "continued use of the substance(s) despite persistent or recurrent problems" always apply. Many older alcoholics do not realize that their persistent or recurrent problems are in fact related to their drinking, a view likely to be reinforced by health care clinicians who may attribute these problems, in whole or in part, to the aging process or age-related comorbidities.

Although tolerance is one of the DSM-IV criteria for a diagnosis of substance dependence—and one weighted heavily by clinicians performing an assessment for substance dependence—the thresholds of consumption often considered by clinicians as indicative of tolerance may be set too high for older adults because of their altered sensitivity to and body distribution of alcohol (Atkinson, 1990). The lack of tolerance to alcohol does not necessarily mean that an older adult does not have a drinking problem or is not experiencing serious negative effects as a result of his or her drinking. Furthermore, many late onset alcoholics have not developed physiological dependence, and they do not exhibit signs of withdrawal. Figure 2-3 presents the DSM-IV criteria for substance dependence as they apply to older adults with alcohol problems.

Figure 2-1

DSM-IV Diagnostic Criteria for Substance Abuse

The DSM-IV defines the diagnostic criteria for substance abuse as a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one or more of the following, occurring within a 12-month period:

1. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household).
2. Recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use).
3. Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct).
4. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights).

Source: Reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition. Copyright 1994, American Psychiatric Association.

Figure 2-2

DSM-IV Diagnostic Criteria for Substance Dependence

The DSM-IV defines the diagnostic criteria for substance dependence as a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three or more of the following, occurring at any time in the same 12-month period:

1. Tolerance, as defined by either of the following:
   - The need for markedly increased amounts of the substance to achieve intoxication or desired effect.
   - Markedly diminished effect with continued use of the same amount of the substance.
2. Withdrawal, as manifested by either of the following:
   - The characteristic withdrawal syndrome for the substance.
   - The same (or closely related) substance is taken to relieve or avoid withdrawal symptoms.
3. Taking the substance often in larger amounts or over a longer period than was intended.
4. A persistent desire or unsuccessful efforts to cut down or control substance use.
5. Spending a great deal of time in activities necessary to obtain or use the substance or to recover from its effects.
6. Giving up social, occupational, or recreational activities because of substance use.
7. Continuing the substance use with the knowledge that it is causing or exacerbating a persistent or recurrent physical or psychological problem.

Source: Reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition. Copyright 1994, American Psychiatric Association.

The drinking practices of many older adults who do not meet the diagnostic criteria for abuse or dependence place them at risk of complicating an existing medical or psychiatric disorder. Consuming one or two drinks per day, for example, may lead to increased cognitive impairment in patients who already have Alzheimer's disease, may lead to worsening of sleep problems in patients with sleep apnea, or may interact with medications rendering them less effective or causing adverse side effects. A barrier to good clinical management in these cases may be the lack of understanding of the risks of so-called "moderate drinking." Limiting access to treatment because symptoms do not meet the rigorous diagnostic criteria of the DSM-IV may preclude an older patient from making significant improvements in his or her life.

At-Risk, Heavy, and Problem Drinking

Some experts use the model of at-risk, heavy, and problem-drinking in place of the DSM-IV model of alcohol abuse and dependence because it allows for more flexibility in characterizing drinking patterns. In this classification scheme, an *at-risk drinker* is one whose patterns of alcohol use, although not yet causing problems, may bring about adverse consequences, either to the drinker or to others. Occasional moderate drinking at social gatherings and then driving home is an example of at-risk drinking. Although an accident may not have occurred, all the elements for disaster are present.

Figure 2-3

Applying DSM-IV Diagnostic Criteria to Older Adults With Alcohol Problems

Diagnostic criteria for alcohol dependence are subsumed within the DSM-IV's general criteria for substance dependence. Dependence is defined as a "maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period" (American Psychiatric Association, 1994, p. 181). There are special considerations when applying DSM-IV criteria to older adults with alcohol problems.

Criteria	Special Considerations for Older Adults
1. Tolerance	May have problems with even low intake due to increased sensitivity to alcohol and higher blood alcohol levels
2. Withdrawal	Many late onset alcoholics do not develop physiological dependence
3. Taking larger amounts or over a longer period than was intended	Increased cognitive impairment can interfere with self-monitoring; drinking can exacerbate cognitive impairment and monitoring
4. Unsuccessful efforts to cut down or control use	Same issues across life span
5. Spending much time to obtain and use alcohol and to recover from effects	Negative effects can occur with relatively low use
6. Giving up activities due to use	May have fewer activities, making detection of problems more difficult
7. Continuing use despite physical or psychological problem caused by use	May not know or understand that problems are related to use, even after medical advice

As their names imply, the terms *heavy* and *problem* drinking signify more hazardous levels of consumption than at-risk drinking. Although the distinction between the terms *heavy* and *problem* is meaningful to alcohol treatment specialists interested in differentiating severity of problems among younger alcohol abusers, it may have less relevance for older adults (Atkinson and Ganzini, 1994), who may experience pervasive consequences with less consumption due to their heightened sensitivity to alcohol or the presence of such coexisting diseases as diabetes mellitus, hypertension, cirrhosis, or dementia.

In general, the threshold for at-risk alcohol use decreases with advancing age. Although an individual's health and functional status determine the degree of impact, the pharmacokinetic and pharmacodynamic effects of alcohol on aging organ systems result in higher peak blood alcohol levels (BALs) and increased responsiveness to doses that caused little impairment at a younger age. For example, body sway increases and the capacity to think clearly decreases with age after a standard alcohol load, even when controlling for BALs (Beresford and Lucey, 1995; Vogel-Sprott and Barret, 1984; Vestal et al., 1977).

Certain medical conditions, for example, hypertension and diabetes mellitus, can be made worse by regular drinking of relatively small amounts of alcohol. In addition, the tendency

"to take the edge off" with alcohol during times of stress, and its subsequent impact on cognition and problem-solving skills, may provoke inadequate or destructive responses, even in those older adults whose overall consumption over 6 months is lower than that for some younger, problem-free, social drinkers. Furthermore, older drinkers who do not meet the substance abuse criteria for "recurrent use" behavior or consequences may, nonetheless, pose potential risk to themselves or others.

For many adults, the phenomenon of aging, with its accompanying physical vulnerabilities and distinctive psychosocial demands, may be the key risk factor for alcohol problems. To differentiate older drinkers, the Consensus Panel recommends using the terms *at-risk* and *problem* drinkers only. As discussed above, not only do the concepts of quantity/frequency implicit in the term *heavy drinking* have less application to older populations, but the "distinction between heavy and problem drinking narrows with age" (Atkinson and Ganzini, 1994, p. 300). In the two-stage conceptualization recommended by the Panel, the *problem drinker* category includes those who would otherwise fall into the *heavy* and *problem* classifications in the more traditional model as well as those who meet the DSM-IV criteria for abuse and dependence.

Age-Appropriate Levels of Consumption

In its *Physician's Guide to Helping Patients With Alcohol Problems*, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) offers recommendations for low-risk drinking. For individuals over the age of 65, NIAAA recommends "no more than one drink per day" (National Institute on Alcohol Abuse and Alcoholism, 1995). The Consensus Panel endorses that recommendation and the accompanying refinements presented below (Dufour et al., 1992):

- No more than one drink per day
- Maximum of two drinks on any drinking occasion (New Year's Eve, weddings)
- Somewhat lower limits for women.

A standard drink is one can (12 oz.) of beer or ale; a single shot (1.5 oz.) of hard liquor; a glass (5 oz.) of wine; or a small glass (4 oz.) of sherry, liqueur, or aperitif. The Panel's purpose in promoting these limits is to establish a "safety zone" for healthy older adults who drink. Older men and women who do not have serious or unstable medical problems and are not taking psychoactive medications are unlikely to incur problems with alcohol if they adhere to these guidelines. The goal is to foster sensible drinking that avoids health risks, while allowing older adults to obtain the beneficial effects that may accrue from alcohol. Older adults' alcohol use should be considered as spanning a spectrum from abstinence to dependence rather than falling into rigid categories.

Drinking Patterns Among Older Adults

Although more research on substance abuse among older adults is needed, studies to date suggest three ways of categorizing older adults' problem-drinking—early versus late onset drinking, continuous versus intermittent drinking, and binge drinking.

Early Onset Versus Late Onset Problem Drinking

One of the most striking and potentially useful findings in contemporary geriatric research is the new understanding about the age at which individuals begin experiencing alcohol-related problems. Although it appears that alcohol use declines with increasing age for most adults (Temple and Leino, 1989; Fillmore, 1987), some begin to experience alcohol-related problems at or after age 55 or 60.

Early onset drinkers tend to have longstanding alcohol-related problems that

generally begin before age 40, most often in the 20s and 30s. In contrast, late onset drinkers generally experience their first alcohol-related problems after age 40 or 50 (Atkinson, 1984, 1994; Liberto and Oslin, 1995; Atkinson et al., 1990).

Early onset drinkers

Early onset drinkers comprise the majority of older patients receiving treatment for alcohol abuse, and they tend to resemble younger alcohol abusers in their reasons for use. Throughout their lives, early onset alcohol abusers have turned to alcohol to cope with a range of psychosocial or medical problems. Psychiatric comorbidity is common among this group, particularly major affective disorders (e.g., major depression, bipolar disorder) and thought disorders. For the most part, they continue their established abusive drinking patterns as they age (Schonfeld and Dupree, 1991; Atkinson, 1984; Atkinson et al., 1985, 1990; Stall, 1986).

Late onset drinkers

In comparison, late onset drinkers appear psychologically and physically healthier. Some studies have found that late onset drinkers are more likely to have begun or to have increased drinking in response to recent losses such as death of a spouse or divorce, to a change in health status, or to such life changes as retirement (Hurt et al., 1988; Finlayson et al., 1988; Rosin and Glatt, 1971). Because late onset problem drinkers have a shorter history of problem drinking and therefore fewer health problems than early onset drinkers do, health care providers tend to overlook their drinking. Panelists report that, in addition, this group's psychological and social pathology, family relationships, past work history, and lack of involvement with the criminal justice system contradict the familiar clinical picture of alcoholism. Late onset drinkers frequently appear too healthy, too "normal," to raise suspicions about problem drinking.

The literature suggests that about one-third of older adults with drinking problems are late onset abusers (Liberto and Oslin, 1995). Late onset alcoholism is often milder and more amenable to treatment than early onset drinking problems (Atkinson and Ganzini, 1994), and it sometimes resolves spontaneously. When appraising their situation, late onset drinkers often view themselves as affected by developmental stages and circumstances related to growing older. Early onset drinkers are more likely to have exacerbated their adverse circumstances through their history of problem alcohol use (Atkinson, 1994).

Data from the Epidemiologic Catchment Area Project (ECA), a large-scale, community-based survey of psychiatric disorders including alcohol abuse and dependence, provide relevant information on the occurrence of late onset alcoholism, which has been defined by various researchers as occurring after ages 40, 45, 50, or 60 (Bucholtz et al., 1995). From the ECA study, 3 percent of male alcoholics between 50 and 59 reported first having a symptom of alcoholism after 49, compared with 15 percent of those between 60 and 69 and 14 percent of those between 70 and 79. For women, 16 percent between 50 and 59 reported a first symptom of alcoholism after the age of 50, with 24 percent of women between 60 and 69 and 28 percent of women between 70 and 79. These percentages suggest that late onset alcoholism is a significant problem, especially among women. (Gender differences are discussed further below.)

Both early and late onset problem drinkers appear to use alcohol almost daily, outside social settings, and at home alone. Both are more likely to use alcohol as a palliative, self-medicating measure in response to hurts, losses, and affective changes rather than as a socializing agent.

Although there is controversy over the issue of whether early and late onset distinctions influence treatment outcomes (Atkinson, 1994), the Panel believes that problem onset affects the choice of intervention. Panelists believe, for example, that late onset problem drinkers may respond better than early onset drinkers to brief intervention because late onset problems tend to be milder and are more sensitive to informal social pressure (Atkinson, 1994; Moos et al., 1991). Figure 2-4 outlines the essential similarities and differences between early and late onset drinkers. The most consistent findings concern medical and psychiatric comorbidity; demographic and psychosocial factors are less consistent. Little is known about the impact of early versus late onset on the complications and treatment outcomes of concomitant medication and alcohol use.

Figure 2-4
Clinical Characteristics of Early and Late Onset Problem Drinkers

Variable	Early Onset	Late Onset
Age at onset	Various, e.g., < 25, 40, 45	Various, e.g., > 55, 60, 65
Gender	Higher proportion of men than women	Higher proportion of women than men
Socioeconomic status	Tends to be lower	Tends to be higher
Drinking in response to stressors	Common	Common
Family history of alcoholism	More prevalent	Less prevalent
Extent and severity of alcohol problems	More psychosocial, legal problems, greater severity	Fewer psychosocial, legal problems, lesser severity
Alcohol-related chronic illness (e.g., cirrhosis, pancreatitis, cancers)	More common	Less common
Psychiatric comorbidities	Cognitive loss more severe, less reversible	Cognitive loss less severe, more reversible
Age-associated medical problems aggravated by alcohol (e.g., hypertension, diabetes mellitus, drug–alcohol interactions)	Common	Common
Treatment compliance and outcome	Possibly less compliant; Relapse rates do not vary by age of onset (Atkinson et al., 1990; Blow et al., 1997; Schonfeld and Dupree, 1991)	Possibly more compliant; Relapse rates do not vary by age of onset (Atkinson et al., 1990; Blow et al., 1997; Schonfeld and Dupree, 1991)

Continuous Versus Intermittent Drinking

Another way of understanding the patterns of drinking over a life span is to look at the time frames in which people drink and the frequency of their drinking. In contrast to ongoing, continuous drinking, *intermittent drinking* refers to regular, perhaps daily, heavy drinking that has resumed after a stable period of abstinence of 3 to 5 years or more (National Institute on Alcohol Abuse and Alcoholism, 1995).

Intermittent drinking problems are easy to overlook, but crucial to identify. Even those problem drinkers who have been sober for many years are at risk for relapse as they age. For this reason, during routine health screenings, it is important for clinicians to take a history that includes both current and lifetime use of alcohol in order to identify prior episodes of alcoholism. When armed with this information, caregivers can help their older patients anticipate situations that tend to provoke relapse and plan strategies for addressing them when they occur.

Binge Drinking

Binge drinking is generally defined as short periods of loss of control over drinking alternating with periods of abstinence or much lighter alcohol use. A *binge* itself is usually defined as any drinking occasion in which an individual consumes five or more standard drinks. For older adults, the Consensus Panel defines a binge as four or more drinks per occasion. People who are alcohol-free throughout the work week and celebrate with Friday night or holiday "benders" would be considered binge drinkers.

Identifying older binge drinkers can be difficult because many of the usual clues, including disciplinary job actions or arrests for driving while intoxicated, are infrequently seen among aging adults who no longer work or drive. Although research is needed on the natural history of binge drinkers as they age, anecdotal observations indicate that younger binge drinkers who survive to their later years often become continuous or near-daily drinkers.

Risk Factors for Alcohol Abuse

Gender

Studies indicate that older men are much more likely than older women to have alcohol-related problems (Myers et al., 1984; Atkinson, 1990; Bucholz et al., 1995). Since the issue was first studied, most adults with alcohol problems in old age have been found to have a long history of problem drinking, and most of them have been men (D'Archangelo, 1993; Helzer et al., 1991b). About 10 percent of men report a history of heavy drinking at some point in their lives. Being a member of this group predicts that one will have widespread physical, psychological, and social dysfunction in later life (Colsher and Wallace, 1990) and confers a greater than fivefold risk of late-life psychiatric illness despite cessation of heavy drinking (Saunders et al., 1991). Forty-three percent of veterans (who can be assumed to be mostly male and mostly alcohol—as opposed to drug—abusers) receiving long-term care were found to have a history of substance abuse problems (Joseph et al., 1995; D'Archangelo, 1993). Men who drink have been found to be two to six times more likely to have medical problems than women who drink (Adams et al., 1993), even though women are more vulnerable to the development of cirrhosis.

Older women are less likely to drink and less likely to drink heavily than are older men (Bucholz et al., 1995). The ratio of male-to-female alcohol abusers, however, is an open question. Bucholz and colleagues noted a "substantial excess of men over women," larger

than the gap observed in younger age groups (Bucholz et al., 1995, p. 30). Another study, however, found "a higher than expected number of females," (Beresford, 1995b, p. 11), whereas a study of older patients in treatment facilities found a ratio of 2:1 (83 men to 42 women) (Gomberg, 1995).

Both epidemiological research, including the findings of the ECA studies of the National Institute of Mental Health (Holzer et al., 1984), and clinical research consistently report later onset of problem drinking among women (Gomberg, 1995; Hurt et al., 1988; Moos et al., 1991). In one study by Gomberg, for example, women reported a mean age at onset of 46.2 years, whereas men reported 27.0 years. Furthermore, 38 percent of older female patients but only 4 percent of older male patients reported onset within the last 10 years (Gomberg, 1995).

A number of other differences between older male and female alcohol abusers have been reported: In contrast to men, women are more likely to be widowed or divorced, to have had a problem drinking spouse, and to have experienced depression (Gomberg, 1993). Women also report more negative effects of alcohol than men (Gomberg, 1994), greater use of prescribed psychoactive medication (Brennan et al., 1993; Gomberg, 1994; Graham et al., 1995), and more drinking with their spouses.

Although research has not identified any definite risk factors for drinking among older women, Wilsnack and colleagues suggest that increased amounts of free time and lessening of role responsibilities may serve as an etiological factor (Wilsnack et al., 1995). It should also be noted that women generally are more vulnerable than men to social pressure, so their move into retirement communities where drinking is common probably has an impact.

Differences between men and women have implications for treatment. Women of all ages are less likely than men to appear at treatment facilities. Among older women who may be socially isolated or homebound, outreach is particularly important. Families, physicians, senior centers and senior housing staff, and the police play important roles in helping to identify women who abuse alcohol (see Chapter 5 for more on community outreach). To be effective, however, all of these potential outreach agents must be sensitive to women's feelings of stigma, shame, and social censure.

Loss of Spouse

Alcohol abuse is more prevalent among older adults who have been separated or divorced and among men who have been widowed (Bucholz et al., 1995). Some researchers have hypothesized that a significant triad of disorders may be triggered in older men when their wives die—depression, development of alcohol problems, and suicide. The highest rate of completed suicide among all population groups is in older white men who become excessively depressed and drink heavily following the death of their spouses (National Institute on Alcohol Abuse and Alcoholism, 1988; Brennan and Moos, 1996).

Other Losses

As individuals age, they not only lose their spouse but also other family members and friends to death and separation. Retirement may mean loss of income as well as job-related social support systems and the structure and self-esteem that work provides. Other losses include diminished mobility (e.g., greater difficulty using public transportation where available, inability to drive or driving limited to the daylight hours, problems walking); impaired sensory capabilities, which may be isolating even when the elder is in physical proximity to others; and declining health due to chronic illnesses.

Health Care Settings

High rates of alcoholism are consistently reported in medical settings, indicating the need for screening and assessment of patients seen for problems other than substance abuse (Douglass, 1984; Liberto et al., 1992; Adams et al., 1996). Among community-dwelling older adults, investigators have found a prevalence of alcoholism between 2 and 15 percent (Gomberg, 1992b; Adams et al., 1996) and between 18 and 44 percent among general medical and psychiatric inpatients (Colsher and Wallace, 1990; Saunders et al., 1991).

Substance Abuse Earlier in Life

A strong relationship exists between developing a substance use disorder earlier in life and experiencing a recurrence in later life. Some recovering alcoholics with long periods of sobriety undergo a recurrence of alcoholic drinking as a result of major losses or an excess of discretionary time (Atkinson and Ganzini, 1994). Among the 10 percent of older men who reported a history of heavy drinking at some point in their lives, widespread physical and social problems occurred in later life (Colsher and Wallace, 1990). Drinking problems early in life confer a greater than fivefold risk of late-life psychiatric illness despite cessation of heavy drinking. Indeed, some research suggests that a previous drinking problem is the strongest indicator of a problem in later life (Welte and Mirand, 1992) and that "studying older alcoholics today may help to anticipate the demands that these younger alcoholics will eventually place on our resources and society" (Bucholz et al., 1995, p. 19).

Comorbid Psychiatric Disorders

Estimates of primary mood disorder occurring in older alcohol abusers vary from 12 to 30 percent or more (Finlayson et al., 1988; Koenig and Blazer, 1996). Although research does not support the notion that mood disorders precede alcoholism in older adults, there is evidence that they may be either precipitating or maintenance factors in late onset drinking. Depression, for example, appears to precipitate drinking, particularly among women. Some problem drinkers of both sexes who do not meet the clinical criteria for depression often report feeling depressed prior to the first drink on a drinking day (Dupree et al., 1984; Schonfeld and Dupree, 1991).

Patients with severe cognitive impairment generally drink less than nonimpaired alcohol users. Panelists report that, among individuals who are only mildly impaired, however, alcohol use may increase as a reaction to lower self-esteem and perceived loss of memory. Axis II disorders are more likely to be associated with early onset interpersonal and alcohol-related problems and less likely to affect the individual for the first time at age 60 or older. Late onset alcohol abuse is less associated with psychological or psychiatric problems and more likely linked to age-associated losses. The exception might be the intermittent drinker who has been in control and whose alcohol or psychiatric problems surface again later in life. See Chapter 4 for more on psychiatric comorbidity.

Family History of Alcohol Problems

There is substantial cumulative evidence that genetic factors are important in alcohol-related behaviors (Cotton, 1979). Some studies have suggested that there may be a greater genetic etiology of problem drinking in early onset than in late onset male alcohol abusers (Atkinson et al., 1990). Researchers studying the genetic tendency of a group of male alcohol abusers assert that these men often have an early history of drinking that worsens over time (Goodwin and Warnock, 1991; Schuckit, 1989).

Although most human genetic studies of alcohol use have been conducted on relatively young subjects, several studies using a twin

registry of U.S. veterans have focused on significantly older individuals (Carmelli et al., 1993; Swan et al., 1990). The results of these studies provide strong evidence that drinking behaviors are greatly influenced by genetics throughout the lifespan (Heller and McClearn, 1995; Atkinson, 1984).

Concomitant Substance Use

The substances most commonly abused by older adults besides alcohol are nicotine and psychoactive prescription medications. (See Chapter 3 for further discussion of psychoactive drug abuse and of drug interactions.) Both nicotine and prescription drug abuse are far more prevalent among older adults who also abuse alcohol than among the general population of this age group (Gronbaek et al., 1994; Goldberg et al., 1994; Colsher et al., 1990; Finlayson et al., 1988). The Panel recognizes that the concomitant use of prescribed benzodiazepines and alcohol is also common among older adults, especially older women. This includes nonabusive use of both substances, which may be harmful even at modest doses—for example, consuming one or two drinks plus a small dose of a sedative at night. A similar concern is raised with the concomitant use of alcohol and opiates prescribed for pain relief. Although there is little empirical evidence in this area, clinical practice suggests that dual addiction decreases the effectiveness of specific interventions and increases the individual's severity of symptoms.

Although there is little research on the abuse of other illicit substances (e.g., heroin, cocaine, marijuana) by older adults, therapists and health care personnel are seeing more older adults who present with symptoms of illicit drug abuse. Panel members believe that many of these older illicit drug abusers receive drugs from a younger relative or partner who uses or sells drugs.

Tobacco

Smoking is the major preventable cause of premature death in the United States, accounting for an estimated five million years of potential life lost (U.S. Preventive Services Task Force, 1996). Every year, tobacco smoking is responsible for one out of every five American deaths (U.S. Preventive Services Task Force, 1996). Despite these compelling statistics, however, 25.5 percent or 48 million adults are current smokers (National Center for Health Statistics, 1996).

Surveys show that cigarette smoking, although fairly widespread among older adults, declines sharply after age 65. In 1994, approximately 28 percent of men ages 45 to 64 reported current use of cigarettes; among those age 65 and older, however, this figure was only about 13 percent. In the younger age group (ages 45 to 64), women have lower smoking rates than men, but after age 65, the levels are similar. Approximately 23 percent of women ages 45 to 64 reported smoking cigarettes in 1994, whereas about 11 percent of those age 65 and older currently smoked (National Center for Health Statistics, 1996). Although the trend in use declines with age, the problem remains significant with over 4 million older adults smoking regularly (Salive et al., 1992).

Smoking is a "major risk factor for at least 6 of the 14 leading causes of death among individuals 60 years and older (i.e., heart disease, cerebrovascular disease, chronic obstructive pulmonary disease, pneumonia/influenza, lung cancer, colorectal cancer) and a complicating factor of at least three others" (Cox, 1993, p. 424). Current cigarette smoking is also "associated with an increased risk of losing mobility in both men and women" (LaCroix et al., 1993). Not surprisingly, older adult smokers have a "70

percent overall risk of dying prematurely" (Carethers, 1992, p. 2257), and fewer smokers "make it to the ranks of older adults as compared with non-smokers and quitters" (Cox, 1993, p. 423). In addition to increasing the risk of disease, smoking may also affect the performance of prescription drugs. For example, smokers tend to require higher doses of benzodiazepines to achieve efficacy than do nonsmokers (Ciraulo et al., 1995).

Smoking in older problem drinkers is far more prevalent than in the general older adult population, making tobacco use the most common substance use disorder among older adults. Some researchers estimate that 60 to 70 percent of older male alcohol users smoke a pack a day (Finlayson et al., 1988), an assessment consistent with studies indicating that the prevalence of smoking among alcoholics generally is above 80 percent (Jarvik and Schneider, 1992).

Although there have been few studies on interventions that are especially useful to older adults regarding smoking cessation, the advantages of quitting at any age are clear (Fiore et al., 1990; Orleans et al., 1994a; Rimer and Orleans, 1994; Orleans et al., 1994b). Two years after stopping, for example, the risk of stroke begins to decrease. Mortality rates for chronic obstructive pulmonary disease decline; bronchitis, pneumonia, and other infections decrease; and respiratory symptoms such as cough, wheezing, and sputum production lessen (U.S. Preventive Services Task Force, 1996). As another example, a 60-year-old male smoker who quits can expect to reduce his risk of smoking-related illness by about 10 percent over the next 15 years (Cox, 1993).

As with alcohol and drug abuse, studies suggest that many clinicians fail to counsel patients about the health effects of smoking, despite the fact that "older smokers are more likely to quit than younger smokers" (Salive et al., 1992, p. 1268). However, tailoring smoking cessation strategies to older adults so that their unique concerns and barriers to quitting are addressed improves success rates. Brief intervention, for example (see Chapter 5), can more than double 1-year quit rates for older adults (Rimer and Orleans, 1994). In one study of older smokers using transdermal nicotine patches, 29 percent of the subjects quit smoking for 6 months (Orleans et al., 1994). Because there is little evidence that adults in recovery from alcohol problems relapse when they stop smoking, the Panel recommends that efforts to reduce substance abuse among older adults also include tobacco smoking (Hurt et al., 1993).

Psychoactive Drugs

Older adults' use of psychoactive drugs combined with alcohol is a growing concern (see Chapter 3). In a study of inpatients age 65 and older in a chemical dependency program, 12 percent had combined dependence on alcohol and one or more prescription drugs (Finlayson et al., 1988). In addition, an early report by Schuckit and Morrissey found that two-thirds of women in an alcohol treatment center had received prescriptions for abusable drugs, usually hypnotic and antianxiety drugs, and one-third reported abusing them (Schuckit and Morrissey, 1979). The drug-abusing women in this study reported more suicide attempts and early antisocial problems and had received more psychiatric care than the alcoholic women who did not abuse their prescriptions. These findings are of particular concern because anxiolytics, hypnotics, and stimulants may be used to treat alcohol and other drug abusers.

An additional concern is that psychoactive drugs may combine with alcohol to create adverse drug reactions. A recent study found that the combination of alcohol and over-the-counter pain medications was the most common source of adverse drug reactions among older patients (Forster et al., 1993). Such drug interactions result from a lack of understanding

among physicians, pharmacists, and older adults themselves about the potential dangers of consuming alcohol when taking certain medications.

3 Use and Abuse of Psychoactive Prescription Drugs and Over-the-Counter Medications

Adults age 65 and older consume more prescribed and over-the-counter medications than any other age group in the United States. Although older adults constituted less than 13 percent of the population in 1991, they received 25 to 30 percent of all prescriptions (Woods and Winger, 1995; Ray et al., 1993; Sheahan et al., 1989) and experienced more than half of all reported adverse drug reactions leading to hospitalization (Chastain, 1992). Some 80 to 86 percent of older adults over age 65 reportedly suffer from one or more chronic diseases or conditions (Administration on Aging and Staff of the U.S. Senate Special Committee on Aging, 1991; U.S. Bureau of the Census, 1996), and an estimated 83 percent of adults over 65 take at least one prescription drug (Hazelden Foundation, 1991; Ray et al., 1993). In fact, 30 percent of those over 65 take eight or more prescription drugs daily (Sheahan et al., 1989).

A large share of prescriptions for older adults are for psychoactive, mood-changing drugs that carry the potential for misuse, abuse, or dependency. In 1983, one-fourth of community-dwelling older adults used psychotherapeutic drugs on a regular basis for sleep disorders or chronic pain as well as for anxiety and labile mood (Finlayson, 1995b). Approximately 25 to 28 percent of older adults reported use of a psychoactive drug within the last year, and 20 percent used a tranquilizer daily. Indeed, 27 percent of all tranquilizer prescriptions and 38 percent of hypnotic prescriptions in 1991 were written for older adults. Moreover, older adults are apparently more likely to continue use of psychoactive drugs for longer periods than their younger counterparts (Sheahan et al., 1995; Woods and Winger, 1995).

This chapter focuses on the most commonly prescribed abusable psychoactive medications for older adults—benzodiazepines, antidepressants, and opiate/opioid analgesics. Also covered are risk factors that make older adults more vulnerable to misuse and abuse of these substances; adverse effects associated with consumption of psychoactive medications; and uses for, effects of, and alternatives to different categories of prescription drugs.

Evolution of Psychoactive Prescribing

Since their introduction in the late 1950s, benzodiazepines have become the most widely prescribed anxiolytics and hypnotics in medical practice. Their growing use throughout the 1960s prompted many to ask whether the United States was becoming an overmedicated society in which people would take a pill for any

physical or emotional pain rather than exert some simple self-control. Some researchers feared that use of prescribed psychoactive drugs for a vast array of conditions would inexorably lead to irresponsible recreational use or physiological dependence on licit or illicit substances. Others thought that prevalence of associated psychosocial problems would rise along with the prescription drug use (Balter, 1973; Manheimer et al., 1973; Cooperstock and Parnell, 1982).

Yet studies of older populations conducted over the past 20 years have generally found that most adults who take psychoactive medications do not intend to abuse them. The drugs usually are obtained with an appropriate prescription from a primary care physician for a specific health-related purpose and are primarily used in conjunction with a physical condition or to alleviate symptoms of emotional stress (Piland, 1979; Guttmann, 1977; Cooperstock and Parnell, 1982). In fact, there has been a steady improvement in prescribing practices and safe and appropriate medication use in the last 25 years.

Misuse and abuse of prescriptions have dwindled over that time for several reasons: (1) safer drugs with fewer undesirable side effects are constantly being developed by pharmaceutical companies, especially for common health and mental health problems; (2) ever-changing Federal and State regulations seek to protect consumers from hazardous substances and to restrict undesirable provider practices; (3) guidelines and protocols recommending best practices are being developed and disseminated to health care providers; (4) more physicians are receiving training relevant to the care of older patients (from geriatric research, education, and clinical centers); and (5) consumers are being educated by their physicians and other health care providers, pharmacists, and various media sources regarding the dangers of drug interactions and the importance of medication compliance for positive therapeutic outcomes.

More specifically, benzodiazepines with a lower addiction potential and fewer adverse interactions with other medications have replaced many of the older barbiturates, bromides, meprobamate, and neuroleptics for management of anxiety, especially acute situational anxiety, generalized anxiety disorder, and associated transient insomnia. Similarly, in the 1960s, the benzodiazepine flurazepam (Dalmane) replaced many of the barbiturates and nonbarbiturates routinely used for sleep disorders and insomnia complaints. Displaced drugs included such barbiturates as pentobarbital (Nembutal), secobarbital (Seconal), and the combination aprobarbital and secobarbital (Tuinal), as well as the nonbarbiturates chloral hydrate, ethchlorvynol (Placidyl), and glutethimide (Doriden) (Fouts and Rachow, 1994; Finlayson, 1995b; Rickels and Schweizer, 1993). Sales reports and pharmacy prescription audits reflect the overall decline in the numbers of stimulant and barbiturate prescriptions, with minor tranquilizers and/or sedatives exceeding other classes since the 1980s (Cooperstock and Parnell, 1982). Prescriptions for the popular anxiolytic benzodiazepines have more recently shifted from diazepam (Valium) to the shorter acting compounds, particularly alprazolam (Xanax) and lorazepam (Ativan), and from the earlier long-acting benzodiazepine hypnotic, flurazepam, to the shorter acting triazolam (Halcion) and temazepam (Restoril). Overall, sales of benzodiazepine anxiolytics have decreased, whereas use of benzodiazepines as sleep-inducing hypnotics has increased or remained stable (Winger, 1993; Woods and Winger, 1995).

In 1996, the top 10 drugs prescribed in nursing homes included two selective serotonin reuptake inhibitors (SSRIs), sertraline (Zoloft) and fluoxetine (Prozac), as well as the nonbenzodiazepine anxiolytic, buspirone

(BuSpar). This represents a decrease from 1970, when 8 of the top 10 nursing home prescriptions were for psychoactive drugs (Prentice, 1979). Furthermore, chronic pain from such conditions as arthritis is more frequently treated now with nonsteroidal anti-inflammatory agents rather than with opiate-containing drugs such as acetaminophen with codeine (Finlayson, 1995b). Yet even though fewer prescriptions for psychoactive drugs are being written for older adults, many patients prescribed these drugs still misuse and abuse them, and some health care providers continue to exhibit poor judgment in their prescribing and monitoring practices.

Patterns of Use

The drug-taking patterns of psychoactive prescription drug users can be described as a continuum that ranges from appropriate use for medical or psychiatric indications through misuse by the patient or the prescribing health care practitioner to persistent abuse and dependence as defined by the American Psychiatric Association's criteria in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994) (see Figure 3-1). Because older adults are less likely to use psychoactive medications nontherapeutically, problems with drugs generally fall into the misuse category and are unintentional. For example, older patients are more likely to misunderstand directions for appropriate use—a problem that is compounded by the multiple prescriptions they receive, often from multiple physicians unaware of a colleague's treatments. In these circumstances, overdose, additive effects, and adverse reactions from combining drugs are more likely to occur. Unintentional misuse can, however, progress into abuse if an older adult continues to use a medication nontherapeutically for the desirable effects it provides, much as an abuser of any drug does.

Adults can become physiologically dependent on psychoactive medications without meeting dependence criteria. Tolerance and physical dependence can develop when some psychoactive medications (e.g., benzodiazepines, opioids) are taken regularly at the therapeutically appropriate dose for relatively brief periods. An abstinence syndrome or withdrawal effects may occur if the drug is stopped precipitously. This type of iatrogenically induced physiological dependence is not usually accompanied by any tendency on the part of the patient to escalate dosage during or after medically supervised withdrawal, to experience cravings after discontinuation, or to subsequently continue use or addictive behavior (Woods and Winger, 1995; Portenoy, 1993). In other words, adults can become dependent on psychoactive medications without realizing it.

Risk Factors for Misuse And Abuse of Psychoactive Drugs

A variety of factors influence the use and potential for misuse or abuse of psychoactive prescription drugs and over-the-counter medications by older adults. The aging process, with its physiological changes, accumulating physical health problems, and other psychosocial stressors, makes prescription drug use both more likely and more risky. The most consistently documented correlates of psychoactive prescription drug use are old age, poor physical health, and female gender (Cooperstock and Parnell, 1982; Sheahan et al., 1989; Finlayson, 1995b).

Figure 3-1
Continuum of Psychoactive Prescription Drug Use

Proper Use

⇩

Misuse

By Patient

- Dose level more or less than recommended
- Use for contraindicated purposes
- Use in conjunction with other medications with undesirable interactions
- Skipping doses/hoarding drugs
- Use with alcohol

By Doctor

- Prescribing unnecessarily high dose
- Prescribing without determining what other medication patient is taking
- Not clearly explaining regimen

⇩

Abuse

By Patient

- Use resulting in
  - Decline in work, school, or home performance
  - Legal problems
- Use in risky situations (e.g., driving while impaired)
- Continued use despite adverse social or interpersonal consequences

Source: American Psychiatric Association, 1994

⇩

Dependence

By Patient

- Use resulting in
  - Tolerance
  - Withdrawal symptoms
  - Decline in normal activities
  - Unsuccessful attempts or a desire to cut down or control use
- Use of a substance in larger amounts or for a longer period than was intended
- Use that consumes a lot of time (including time to acquire and use the drug and to recover from its effects)
- Continued use despite knowledge that it has caused or aggravated a physical or psychological problem

Source: American Psychiatric Association, 1994

Among older women, use of psychoactive drugs is correlated with middle- and late-life divorce, widowhood, less education, poorer health and chronic somatic problems, higher stress, lower income, and more depression and anxiety (Gomberg, 1995; Closser and Blow, 1993). Major losses of economic and social supports, factors related to the provider and health care system, and previous or coexisting drug, alcohol, or mental health problems also seem to increase vulnerability for misusing or abusing prescribed medications.

Data from the 1984 Epidemiological Catchment Area (ECA) survey (Regier et al., 1988) confirm that anxiety disorders are relatively prevalent in the general population of

adults older than 65, with 7.3 percent of older respondents reporting an incidence within the past month. Older women are nearly twice as likely as older men to develop a diagnosable anxiety disorder. Bereavement precipitates anxiety in nearly one-fourth of survivors during the first 6 months following the death of a loved one and in nearly two-fifths of those left behind during the second 6-month period. Anxiety is also common after a severe traumatic event (Salzman, 1993a).

System and Environmental Influences

A variety of health care system-related and environmental factors also place older adult users of psychoactive prescription drugs at risk for misuse of these substances, serious adverse effects, or abuse and dependence. Potentially dangerous prescribing practices include ordering medications without adequate diagnoses or other documented indicators of symptoms, prescribing them for too long a time without appropriate medical monitoring of drug reactions and patient compliance with the prescribed regimen, selecting drugs known to have a high potential for side effects in older adults at the doses given, ordering drugs without knowing or reviewing whether they interact adversely with other medications the patient is taking, and failing to provide adequate and comprehensible instructions for patients regarding how and when to take medications and what side effects to expect and report. Drug misuse also includes failure to consider the influence of aging on the effects of drugs in the body (see Figure 3-2).

Previous History of Substance Abuse or Psychiatric Disorder

Although most experts agree that nonmedical use or abuse of benzodiazepines is rare at any age and household surveys indicate that nonmedical use is declining (Salzman, 1993b; Barnas et al., 1992), some liability for abuse of the benzodiazepines does seem to exist in the following cohorts: (1) light-to-moderate alcohol drinkers who have been demonstrated to prefer diazepam over placebo and may be vulnerable to the reinforcing properties of these drugs; (2) adults with histories of sedative abuse, abuse of multiple drugs, and methadone-maintained clients; and (3) patients who have developed physiological dependence on benzodiazepines after long-term use and are experiencing acute withdrawal effects following abrupt discontinuation (Salzman, 1993b; Barnas et al., 1992).

However, continued craving for the medication does not seem to persist among adults who fit none of the categories above and who have successfully been withdrawn from benzodiazepines. By contrast, adults with histories of substance abuse prefer benzodiazepines to placebo. They also prefer, however, older anxiolytics and hypnotics such as methaqualone (Quaalude) or meprobamate (Miltown) to benzodiazepines (Winger, 1993; Woods and Winger, 1995). The benzodiazepines preferred by sedative abusers and methadone maintenance clients seem to be diazepam, lorazepam, and alprazolam (Woods and Winger, 1995). Unfortunately, little is known about the risk potential for these individuals in late life.

Figure 3-2
Effect of Aging on Response to Drug Effect

Drug	Action	Effects of Aging
Analgesics		
Aspirin	Acute gastroduodenal mucosal damage	No change
Morphine	Acute analgesic effect	Increased
Pentazocine	Analgesic effect	Increased
Anticoagulants		
Heparin	Activated partial thromboplastin time	No change
Warfarin	Prothrombin time	Increased
Bronchodilators		
Albuterol	Bronchodilation	No change
Ipratropium	Bronchodilation	No change
Cardiovascular Drugs		
Adenosine	Minute ventilation and heart rate	No change
Diltiazem	Acute antihypertensive effect	Increased
Enalepril	Acute antihypertensive effect	Increased
Isoproterenol	Chronotropic effect	Decreased
Phenylephrine	Acute vasoconstriction	No change
	Acute antihypertensive effect	No change
Prazocin	Chronotropic effect	Decreased
Timolol	Chronotropic effect	No change
Verapamil	Acute antihypertensive effect	Increased
Diuretics		
Furosemide	Latency and size of peak diuretic response	Decreased
Psychotropics		
Diazepam	Acute sedation	Increased
Diphenhydramine	Psychomotor function	No change
Haloperidol	Acute sedation	Decreased
Midazolam	Electroencephalographic activity	Increased
Temazepam	Postural sway, psychomotor effect, and sedation	Increased
Triazolam	Psychomotor activity	Increased
Others		
Levodopa	Dose elimination due to side effects	Increased
Tolbutamide	Acute hypoglycemic effect	Decreased

Source: Adapted from Cusack and Vestal, 1986.

Data from the Mayo Clinic further suggest that psychiatric diagnoses may be a risk factor among older adults for abuse of and dependence on prescription drugs (Finlayson, 1995a). In this study, rates of mental disorder diagnosis in 100 older adults hospitalized for prescription drug dependence included the following disorders: mood (32 percent), organic mental (28 percent), personality (27 percent), somatoform (16 percent), and anxiety (12 percent). The patient group was predominantly female, and some patients had more than one mental disorder diagnosis. The patient group was identified as having considerable psychopathology by several other measures as well (Finlayson, 1995a). Although research on older drug addicts is rare, at least one study indicates that older patients with substance dependence disorders are more likely than younger drug addicts to have a dual diagnosis. In this investigation, only 15 percent of older drug-dependent patients had a substance abuse diagnosis without a coexisting psychiatric disorder compared with 64 percent of younger counterparts. These researchers concluded that older adults with a preexisting psychiatric disorder may be more at risk for concurrent prescription drug dependence (Solomon et al., 1993).

Adverse Effects

The chronic administration of psychoactive substances to older adults, even at therapeutic doses, has been associated with a variety of adverse central nervous system effects, including diminished psychomotor performance, impaired reaction time, loss of coordination, ataxia, falls, excessive daytime drowsiness, confusion, aggravation of emotional state, rage, and amnesia as well as the development of physiological dependence manifested by withdrawal effects when the drugs are suddenly discontinued (Fouts and Rachow, 1994). Psychoactive medications have been implicated in 23 percent of adverse drug reactions among nursing home residents (Joseph, 1995). Side effects from these drugs range from constipation, dry mouth, or urinary difficulty to such severe reactions as hip fractures from falls, withdrawal seizures or delirium, and worsened depression leading to suicide attempts (American Psychiatric Association, 1994). However, all undesirable reactions may be more serious in frail older adults and in those with multiple chronic diseases and cannot be ignored (Lapane et al., 1995; Solomon et al., 1993).

Anxiolytics

Figure 3-3 summarizes information about some of the anxiolytics most frequently prescribed for acute or chronic anxiety in older adults. The figure depicts the generic and most usual brand name for these medications as well as the elimination half-life or duration of action in the body. Note that Figures 3-3 and 3-4 both contain the names of benzodiazepines—their designations as *anxiolytics* or *sedative/hypnotics* are based on properties that drive marketing decisions. Some physicians may choose, for example, to use lorazepam as either an anxiolytic or sedative depending on the circumstances.

Figure 3-3
Commonly Prescribed Anxiolytics

Class	Drug	Brand Name	Elimination Half-Life for Older Adults
Benzodiazepines	Alprazolam	Xanax	9–20 hours
	Chlordiazepoxide	Librium	5–30 hours, with short- and long-acting active metabolites
	Diazepam	Valium	20–50 hours, with short- and long-acting active metabolites effective up to 200 hours
	Lorazepam	Ativan	18–24 hours; clearance may be reduced in older adults
	Oxazepam	Serax	3–25 hours
Serotonin agonist	Buspirone	BuSpar	1–11 hours

*Refer to product information insert for each drug as to its suitability for use in older adults.

An estimated 95 percent of benzodiazepine prescriptions for older adults in this country are ordered for anxiety and insomnia, with only 5 percent used as adjuncts for general anesthesia, as muscle relaxants, or as anticonvulsants (Ray et al., 1993). Numerous studies, including the 1990 American Psychiatric Association Task Force report, have concluded that the vast majority of use of these agents is appropriate, with only occasional overprescribing by physicians for some patient subgroups or misuse by patients (Salzman, 1990, 1993b; Winger, 1993; Woods and Winger, 1995). Even among the small group of respondents to household surveys who have acknowledged taking benzodiazepines that were not prescribed for them (less than 6 percent), the vast majority borrowed pills from significant others and used them for symptom relief, not recreational purposes. Moreover, worldwide experience with the short-term use of benzodiazepines to relieve acute anxiety, situational stress, and transient insomnia indicates that these medications are unusually safe and efficacious, with very little liability for dose increases, prolonged use, or addictive dependence (Salzman, 1993b).

Although most people use benzodiazepines for short periods of time without developing problems, others take them past the point where they are effective and thus are at risk for adverse effects including tolerance and abuse. By 1990, as many as a fourth of anxiolytic users had taken these medications for a year or more (Winger, 1993). Several studies in the United States and Britain confirm that long-term users (for a year or more) of benzodiazepines are likely to be older than age 45 and female with substantial psychological stress, dysphoric or depressive symptoms, and multiple chronic physical illnesses or somatic problems (Salzman, 1993b; Winger, 1993). Benzodiazepine use for longer than 4 months is of particular concern among older adults. The physiological aging process decreases the body's ability to absorb and metabolize drugs, allowing the drug to accumulate more rapidly than in younger people and increase the likelihood of toxicity and adverse effects. Benzodiazepines have variable rates of absorption, with metabolism occurring primarily in the liver. Because the longer acting benzodiazepines have active metabolites, some of which have very long half-lives—up to 200 hours in the case of flurazepam—the duration of action is often

longer than expected. They are also more likely to produce residual sedation and other adverse effects such as decreased attention, memory, cognitive function, and motor coordination and increased injurious falls or motor vehicle crashes (Weiss, 1994; Solomon et al., 1993; Fouts and Rachow, 1994; Ray et al., 1993; Winger, 1993). By contrast, some shorter acting benzodiazepines are not as likely to produce toxic or dependence-inducing effects with chronic dosing. One reason is that these drugs have no active metabolites. Furthermore, because the oxidative pathway is often impaired in older adults and in those with liver disease, it is best to choose drugs that are not metabolized by this pathway. Such drugs include oxazepam (Serax) and lorazepam. Because of these unpleasant and potentially hazardous side effects of many benzodiazepines, the Panel recommends caution in selecting the most appropriate benzodiazepine for elderly patients.

Unfortunately, both long- and short-acting benzodiazepines tend to result in physiological dependence, even when these medications are taken at therapeutic doses and for as short a period as 2 months (Woods and Winger, 1995). Many of the most unpleasant withdrawal effects can be alleviated by gradually tapering the dose rather than stopping it abruptly. Even if the dose is tapered, however, withdrawal symptoms are experienced by 40 to 80 percent of people who discontinue benzodiazepines after 4 to 6 months of regular use (Miller et al., 1985; Speirs et al., 1986). Such symptoms as anxiety, agitation, lethargy, nausea, loss of appetite, insomnia, dizziness, tremor, poor coordination, difficulty concentrating, depersonalization, or confusion may occur after stopping either long or short half-life benzodiazepines. Symptoms usually peak toward the end of the tapered discontinuation and disappear altogether within 3 to 5 weeks (Winger, 1993; Rickels and Schweizer, 1993). In a few psychiatric patients, the withdrawal syndrome has been known to persist for several months (Solomon et al., 1993).

The rebound effects experienced in withdrawal usually mimic the original symptoms for which the benzodiazepine was prescribed (e.g., anxiety, insomnia, panic). Those effects occur in as many as one-third to one half of patients after even 1 or 2 months of benzodiazepine therapy, may be more intense than before treatment began, and are frequently misperceived by frightened patients as a return of the initial problem (Rickels and Schweizer, 1993; Salzman, 1993b). Rebound effects, however, are sudden and transient, whereas a relapse entails a gradual but persistent return of the original symptoms that may continue unabated unless treated again with benzodiazepines or other appropriate medications (Rickels and Schweizer, 1993).

Unfortunately, misperceived rebound effects may lead some patients to self-medicate by supplementing doses during withdrawal unless the tapering is sufficiently gradual to ameliorate symptoms and the patient is counseled that these rebound effects are transient and to be expected (Rickels and Schweizer, 1993). Unlike withdrawing from alcohol, however, the difficulty in abstaining during the acute phase of benzodiazepine withdrawal is not followed by any further craving once the patient is drug-free (Winger, 1993). It appears that most patients withdrawn from benzodiazepines can maintain abstinence.

The question of whether the benefits outweigh the disadvantages of chronic benzodiazepine therapy is far from settled. Followup studies have found that more than half of patients (50 to 66 percent) treated with benzodiazepine anxiolytics or hypnotics experience a relapse of the original symptoms within a year of discontinuing benzodiazepine use (Atkinson et al., 1992). Half of these patients resume use of benzodiazepines. Longer followup studies indicate that a majority

eventually resume use, whether intermittently or chronically (Finlayson, 1984). The reasons for discontinuation have to be examined in an individually calculated risk–benefit model by weighing the linkage between untreated anxiety or insomnia and alcoholism, depression, and suicide (Woods and Winger, 1995). Many researchers, moreover, argue that anxiety is undermedicated with benzodiazepines and that as many as 60 percent of patients who have legitimate medical or psychological reasons for high levels of stress and anxiety do not seek or obtain relief for these conditions (Salzman, 1993a).

Salzman (1993b) makes a compelling case that chronic benzodiazepine use may be appropriate for patients he characterizes as older (but not necessarily elderly), with a number of chronic illnesses and compromised physical and/or psychosocial functioning. This group includes patients who are often in pain, dysphoric, or depressed as well as anxious, suffering from insomnia, or willing to visit their physicians. Chronic users of this type may experience side effects from benzodiazepines or incur mild interactions with other drugs they are taking, but they are not purposefully abusing psychoactive drugs or mixing them with alcohol. Benzodiazepine prescriptions seem to be clearly indicated for patients with overwhelming stress or anxiety that compromises functioning for short periods of time and for chronically medically ill, usually older, patients (Salzman, 1993b).

One new drug, the serotonin agonist buspirone, is a promising alternative to benzodiazepines for the treatment of chronic anxiety with associated depressive symptoms. It apparently produces minimal sedative effects and little or no impairment of cognitive or psychomotor functioning, is not synergistic with most other psychoactive drugs or alcohol, and has little observed potential for causing tolerance or dependence, withdrawal, or overdose. Buspirone does not have the muscle relaxant or anticonvulsant properties of benzodiazepines. However, it does have some side effects at higher doses, and it is not immediately or invariably effective in ameliorating anxiety. The efficacy of buspirone for older patients is still being examined; it may precipitate some manic effects. Also, dosages should be reduced for those with decreased renal or hepatic functioning (Winger, 1993; Weiss, 1994; Ray et al., 1993; Bezchlibnyk-Butler and Jeffries, 1995).

Sedative/Hypnotics

Sleep disturbances are a common complaint among older adults, occurring in approximately half of Americans over age 65 who live at home and in two-thirds of those in long-term care facilities. Complaints about insomnia, which increase with advancing age, occur in conjunction with a variety of psychiatric, medical, or pharmacological problems as well as the changing circadian rhythms that accompany the aging process (National Institutes of Health, 1990; Fouts and Rachow, 1994; Mullan et al., 1994).

As previously noted, benzodiazepines have replaced older and more toxic hypnotics (e.g., secobarbital, ethchlorvynol, glutethimide), which have a high addiction liability and difficult-to-treat overdose potential and which also tend to accumulate in older adults with chronic dosing as their capabilities for drug absorption and elimination diminish (Solomon et al., 1993; Bezchlibnyk-Butler and Jeffries, 1995). Nearly two out of five prescriptions for benzodiazepines (38 percent) in 1991 were written for older patients (National Institutes of Health, 1990; Fouts and Rachow, 1994). As with anxiolytics, the shorter acting hypnotic benzodiazepines are generally favored over longer acting ones that tend to accumulate in older adults and produce undesirable effects in the central nervous system. Today, the most

commonly prescribed hypnotic benzodiazepines are oxazepam, temazepam, triazolam, and lorazepam (Fouts and Rachow, 1994).

Unfortunately, hypnotic benzodiazepines, like the anxiolytics, also tend to be prescribed for longer than needed for efficacy, a situation that leads to the well-known drawbacks of withdrawal and rebound insomnia (Fouts and Rachow, 1994). In 1990, for example, 23 percent of adults who used benzodiazepine hypnotics (mostly the short-acting triazolam) had used them nightly for at least 4 months (Woods and Winger, 1995).

Figure 3-4 displays information about some sedative/hypnotics frequently prescribed for insomnia, listing the generic name, the common trade name, and the elimination half-life or expected duration of action in the body. The commonly prescribed oxazepam and lorazepam are listed with the benzodiazepine anxiolytics.

Although aging changes sleep architecture, decreasing the amount of time spent in the deeper levels of sleep (stages three and four) and increasing the number and duration of awakenings during the night, these new sleep patterns do not appear to bother most medically healthy older adults who recognize and accept that their sleep will not be as sound or as regular as when they were younger (National Institutes of Health, 1990; Mullan et al., 1994). Rather, insomnia complaints among older adults are usually associated with a secondary medical or psychiatric disorder, psychosocial changes and stressors, or the use of medications that interfere with sleep (National Institutes of Health, 1990; Mullan et al., 1994).

Figure 3-4
Commonly Prescribed Sedative/Hypnotics*

Class	Drug	Brand Name	Elimination Half-Life for Older Adults
Benzodiazepines	Flurazepam	Dalmane	72 hours, with short- and long-acting active metabolites
	Prazepam	Centrax	Less than 3 hours, with long-acting active metabolites
	Quazepam	Doral	25–41 hours, with long-acting active metabolites
	Temazepam	Restoril	10–20 hours
	Triazolam	Halcion	2–6 hours, with reports of clinical effects up to 16 hours following a single dose
Imidazopyridine	Zolpidem	Ambien	1.5–4.5 hours (longer in older adults)
Chloral derivatives	Chloral hydrate	Noctec	4–8 hours (loses effect in 2 weeks)
Antihistamines	Hydroxyzine	Atarax	1–3 hours
	Diphen-hydramine	Benadryl (over-the-counter)	8–10 hours
	Doxylamine	Unisom (over-the-counter)	8–10 hours

*Refer to product information insert for each drug as to its suitability for use in older adults.

Among the drugs causing poor sleep patterns are the antidepressant monoamine oxidase (MAO) inhibitors and SSRIs; anti-Parkinson medications; appetite suppressors; the beta-blocker for hypertension, propranolol (Inderal); and alcohol. Sleep apnea, in particular, may be aggravated by the use of a benzodiazepine (Culebras, 1992). Insomnia has also been related to depression and anxiety, Alzheimer's disease, Parkinson's disease, cardiovascular disease, arthritis, pain, urinary problems, prostate disease, pulmonary disease, hyperthyroidism, and endocrinopathies. Sleep disruption as well as anxiety commonly accompany other psychosocial adjustments such as retirement, bereavement, dislocation, or traumatic situations (National Institutes of Health, 1990; Mullan et al., 1994). Sleep complaints are also associated with female gender, living alone or in a nursing facility, activity limitations, and sleep habits such as excessive daytime napping (Mullan et al., 1994).

With respect to treatment of insomnia, a 1990 National Institutes of Health consensus development conference statement pertaining to sleep disorders of older adults specifically cautioned against relying on hypnotic benzodiazepines as the mainstay for managing insomnia (National Institutes of Health, 1990). Although these medications can be useful for short-term amelioration of temporary sleep problems, no studies demonstrate their long-term effectiveness beyond 30 continuous nights, and tolerance and dependence develop rapidly (Mullan et al., 1994; National Institutes of Health, 1990; Salzman, 1993b). In fact, symptomatic treatment of insomnia with medications should be limited to 7 to 10 days with frequent monitoring and reevaluation if the prescribed drug will be used for more than 2 to 3 weeks. Intermittent dosing at the smallest possible dose is preferred, and no more than a 30-day supply of hypnotics should be prescribed. Given the changes associated with drug metabolism among older patients, all hypnotic medications should be used with caution, especially those with long half-lives (National Institutes of Health, 1990; Fouts and Rachow, 1994; Mullan et al., 1994). As with the anxiolytic benzodiazepines, withdrawal effects signifying physiological dependence are common concomitants of precipitous medication discontinuation, especially of the short-acting compounds. The REM sleep rebound effects from abruptly stopping a chronically administered benzodiazepine hypnotic can last 1 to 3 weeks or longer (Mullan et al., 1994; Fouts and Rachow, 1994).

Furthermore, sedative/hypnotics, as well as benzodiazepines, used for sleep induction may cause confusion and equilibrium problems in older users who get up frequently during the night (e.g., to go to the bathroom). When treating older adults, situations likely to increase the incidence of falls with subsequent injury should be avoided at all costs. In addition, drugs taken at night for sleep induction will be potentiated by any alcohol the individual has used during the evening.

Instead of relying on drugs as a first line of approach, treatment should initially be directed toward any underlying disorder (e.g., depression, alcoholism, panic states, anxiety) (Mullan et al., 1994). Having the patient keep a sleep diary may be useful for obtaining a more objective clarification of sleep patterns because insomnia is notoriously subjective. Also, the importance of good sleep hygiene cannot be underestimated (Mullan et al., 1994; National Institutes of Health, 1990; Fouts and Rachow, 1994). Patients may need to be educated about regularizing bedtime, restricting daytime naps, using the bedroom only for sleep and sexual activity, avoiding alcohol and caffeine, reducing evening fluid intake and heavy meals, taking some medications in the morning, limiting exercise immediately before retiring, and substituting behavioral relaxation techniques

(National Institutes of Health, 1990; Fouts and Rachow, 1994).

Withdrawal from sedative/hypnotic medications (as well as anxiolytics) should be carefully monitored. Withdrawal is characterized by increased pulse rate, hand tremor, insomnia, nausea or vomiting, and anxiety. A grand mal seizure may occur in as many as 20 to 30 percent of dependent persons if withdrawal symptoms are untreated. Hallucinations similar to those associated with alcoholic delirium tremens (DTs) may also be present.

Several precautions about particular drugs should be noted. Specifically, triazolam rapidly achieved notoriety and was banned in the United Kingdom and other European countries after its 1979 introduction with accompanying reports of bizarre, idiosyncratic panic and delusional reactions as well as adverse side effects of confusion, agitation, and anxiety (Woods and Winger, 1995; Winger, 1993). More serious side effects are still more consistently and more frequently reported with triazolam than with temazepam, a similar short-acting hypnotic benzodiazepine (Woods and Winger, 1995). It appears that older patients are more likely than younger ones to experience increased sedation and psychomotor impairment with this medication and to report an increased incidence of adverse behavioral reactions if the dose is greater than 0.125 mg (Fouts and Rachow, 1994).

Another recently introduced but popular hypnotic, zolpidem (Ambien), does not have the anxiolytic, muscle relaxant, or anticonvulsant properties of benzodiazepines. It has been touted as a safer sleep medication because it does not disrupt physiological sleep patterns at low doses and appears to have relatively mild, dose-related adverse effects. However, zolpidem is much more costly than the benzodiazepines, an important consideration for low-income older patients. Also, lower doses (beginning at 5 mg) must be used in older patients to avoid hazardous confusion and falls (Winger, 1993; Fouts and Rachow, 1994; Ray et al., 1993; Bezchlibnyk-Butler and Jeffries, 1995). Because of its recent introduction, there is limited information available on the possible undesirable effects of zolpidem for the older patient.

Several antihistamines, usually used for relief of allergies and available as over-the-counter medications, are also taken as sleeping aids because of their sedating properties (e.g., Benadryl). Antihistamines are also combined with over-the-counter analgesics and marketed as nighttime pain medications (e.g., Tylenol PM). However, older adults appear to be more susceptible to adverse anticholinergic effects from these substances and are at increased risk for orthostatic hypotension and central nervous system depression or confusion. In addition, antihistamines and alcohol potentiate one another, further exacerbating the above conditions as well as any problems with balance. Because tolerance develops within days or weeks, these antihistamines have questionable efficacy and are not recommended for older adults who are living alone (Ray et al., 1993; Fouts and Rachow, 1994; National Institutes of Health, 1990; Bezchlibnyk-Butler and Jeffries, 1995).

Opiate/Opioid Analgesics

An estimated 2 to 3 percent of noninstitutionalized older adults receive prescriptions for opioid analgesics (Ray et al., 1993). Opioids are undeniably effective for management of severe pain such as that occurring after surgery and serious trauma and periodically in some medical illnesses (e.g., gout, inflammatory bowel disease). This acute pain is usually short-lived and resolves within days to weeks at most. Opioid analgesics are also used to treat cancer-related pain, which is experienced by nearly all patients with advanced disease and by one-third-to-one-half

of patients in earlier stages. The use of opioid medications for these purposes is widely acceptable in medical practice (Portenoy, 1993).

In addition to the rapid development of tolerance and physiological dependence, other problems are associated with opioid prescriptions for older patients. Opioid dose requirements decrease with age: The onset of action is slowed by the decreased rate of gastrointestinal absorption of orally ingested narcotics, and the duration of action is longer because of older patients' decreased metabolism and liver functioning. Older adults also have more adverse side effects because of changes in receptor sensitivity with age. The less potent opioids, codeine and propoxyphene (Darvon), cause sedation and mild, dose-related impairment of psychomotor performance, whereas the more potent opioids, oxycodone (Percodan) and intramuscular meperidine (Demerol), induce substantial impairment of vision, attention, and motor coordination. No apparent relation between age and sedation is observed in patients treated with morphine and pentazocine (Talwin) (Solomon et al., 1993; Ray et al., 1993).

The prescribing of opioid analgesics for chronic nonmalignant pain (not associated with cancer) is a controversial issue. Although long-term treatment of chronic pain with opiates or opioids has not traditionally been accepted by either patients or physicians, a growing body of evidence suggests that prolonged opioid therapy may be both effective and feasible. Convincing and persuasive testimony has also been given by a number of clinicians and medical associations regarding the successful management of lengthy opioid treatment in patients with chronic nonmalignant pain (Portenoy, 1993).

These advocates note that both acute and chronic pain in the United States is more usually under- than overmedicated for a variety of patient- and provider-related reasons, not the least of which is fear of addiction. In addition, patients may believe that stoicism is virtuous, that pain is an inevitable and intractable part of the illness or disease, or that prescribed medications are too costly, too complex to manage, or likely to have numerous and undesirable side effects. Clinicians also may underprescribe because of fear of sanctions (Portenoy, 1993).

The disagreements among clinicians regarding management of long-term opioid therapy reflect different perspectives regarding the dangers and persistence of psychological dependence following physical addiction and the potential for psychosocial disintegration into an addictive, drug-abusing lifestyle. Many researchers point out that clinical populations can be successfully withdrawn from opiates and opioids without dire consequences. One study, for example, found that only 4 of nearly 12,000 patients who were prescribed morphine for self-administration became addicted (Chapman and Hill, 1989). Other practitioners argue that patients' quality of life improves (e.g., less medical care utilization) if they are kept on opioids and manage pain without addiction (Finlayson et al., 1986a, 1986b). Also, opioid analgesics are usually contraindicated if the patient has a history of alcoholism or another substance abuse or dependence disorder.

Opioid withdrawal is accompanied by restlessness, dysphoric mood, nausea or vomiting, muscle aches, tearing and yawning, diarrhea, fever, and insomnia. Although opioid withdrawal is uncomfortable, it is not life-threatening or particularly dangerous compared with untreated withdrawal from benzodiazepines.

Figure 3-5 displays information about some of the more commonly prescribed opiate/opioid analgesics, listing the generic and brand names with comments about indications and effects.

Interactions With Other Drugs and With Alcohol

Drug–drug and drug–alcohol interactions are of increased importance in older adults for several reasons. Because older adults take more prescription and over-the-counter drugs than younger adults and many continue to drink, the potential for interactions is enhanced. An interaction is likely to be more problematic in an older adult because of slowed metabolic and clearance mechanisms, resulting in a delay in the resolution of the unfavorable reaction. The aging body is also more susceptible to adverse interactions. The presence of chronic diseases tends to increase the number of medications used by older adults. Thus the risk for drug interactions is increased in those for whom an adverse reaction would be most dangerous. Further research is needed on specific drug–drug interactions and on drug-alcohol combinations that can be deadly, such as alcohol and diazepam.

Figure 3-5
Commonly Prescribed Opiate/Opioid Analgesics*

Class	Drug	Brand Name	Comments
Opiates	Methylmorphine Morphine		Common ingredient of analgesics.
	Codeine	e.g., Tylenol III, Robitussin A-C	Common ingredient of analgesics and antitussives. Can cause sedation and mild, dose-related impairment of psychomotor coordination.
Opioids (synthetic)	Hydrocodone	Lortab	Can produce dose-related respiratory depression and irregular breathing if taken in large amounts.
	Meperidine	Demerol	Contraindicated if patient is taking MAO inhibitors. Can produce psychomimetic effects and impair vision, attention, and motor coordination.
	Oxycodone	Percodan/ Percocet	Can produce substantial impairment of vision, attention, and motor coordination.
	Propoxyphene	Darvon	Can produce sedation and mild, dose-related impairment of psychomotor coordination.
	Pentazocine	Talwin	Age does not appear to increase sedative effects.

*Refer to product information insert for each drug as to its suitability for use in older adults.

Figure 3-6

Drug–Alcohol Interactions and Adverse Effects

Drug	Adverse Effect With Alcohol
Acetaminophen	Severe hepatoxicity with therapeutic doses of acetaminophen in chronic alcoholics
Anticoagulants, oral	Decreased anticoagulant effect with chronic alcohol abuse
Antidepressants, tricyclic	Combined central nervous system depression decreases psychomotor performance, especially in the first week of treatment
Aspirin and other nonsteroidal anti-inflammatory drugs	Increased the possibility of gastritis and gastrointestinal hemorrhage
Barbiturates	Increased central nervous system depression (additive effects)
Benzodiazepines	Increased central nervous system depression (additive effects)
Beta-adrenergic blockers	Masked signs of delirium tremens
Bromocriptine	Combined use increases gastrointestinal side effects
Caffeine	Possible further decreased reaction time
Cephalosporins and Chloramphenicol	Disulfiram-like reaction with some cephalosporins and chloramphenicol
Chloral hydrate	Prolonged hypnotic effect and adverse cardiovascular effects
Cimetidine	Increased central nervous system depressant effect of alcohol
Cycloserine	Increased alcohol effect or convulsions
Digoxin	Decreased digitalis effect
Disulfiram	Abdominal cramps, flushing, vomiting, hypotension, confusion, blurred vision, and psychosis
Guanadrel	Increased sedative effect and orthostatic hypotension
Glutethimide	Additive central nervous system depressant effect
Heparin	Increased bleeding
Hypoglycemics, sulfonylurea	Acutely ingested, alcohol can increase the hypoglycemic effect of sulfonylurea drugs; chronically ingested, it can decrease hypoglycemic effect of these drugs
Tolbutamide, chlorpropamide	Disulfiram-like reaction
Isoniazid	Increased liver toxicity
Ketoconazole, griseofulvin	Disulfiram-like reaction
Lithium	Increased lithium toxicity
Meprobamate	Synergistic central nervous system depression
Methotrexate	Increased hepatic damage in chronic alcoholics
Metronidazole	Disulfiram-like reaction
Nitroglycerin	Possible hypotension
Phenformin	Lactic acidosis (synergism)
Phenothiazines	Additive central nervous system depressant activity
Phenytoin	Acutely ingested, alcohol can increase the toxicity of phenytoin; chronically ingested, it can decrease the anticonvulsant effect of phenytoin
Quinacrine	Disulfiram-like reaction
Tetracyclines	Decreased effect of doxycycline

Source: Korrapati and Vestal, 1995.

Any use of drugs and alcohol carries risk, abuse of these substances raises the risk, and multiple drug abuse (polypharmacy) further increases the risk. A recent study documented the many possible unfavorable reactions between prescription drugs and alcohol (Korrapati and Vestal, 1995) (see Figure 3-6). For example, chronic alcoholics who use even therapeutic doses of acetaminophen may experience severe hepatoxicity. Alcohol can increase lithium toxicity and enhance central nervous system depression in persons taking tricyclic antidepressants. High doses of benzodiazepines used in conjunction with alcohol or barbiturates can be lethal (American Psychiatric Association, 1994).

Drug–drug interactions can be extremely dangerous and dramatic—the combination of meperidine with an MAO inhibitor can cause marked blood pressure fluctuations, excitability, rigidity, hyperreflexia, hyperthermia, coma, and even death. More often, however, such interactions produce subtle or mild quantitative effects. A change in sleep, appetite, or an increase in anxiety may be the only sign and could lead a clinician to increase the dose of a medication that is already contributing to the adverse reaction. To use psychoactive prescription and over-the-counter drugs wisely, both physicians and consumers need to understand how the aging process influences responses to medication and to recognize how vulnerable older adults are both to their misuse and abuse.

4 Identification, Screening, and Assessment

Although the vast majority of older adults (87 percent) see physicians regularly, their service providers estimate that 40 percent of those who are at risk do not self-identify or seek services for substance abuse problems on their own (Raschko, 1990). Moreover, they are unlikely to be identified by their physicians despite the frequency of contact. Because most older adults live in the community and fewer than 5 percent older than 65 live in nursing or personal care homes, training supervisors in such residences does not offer a reasonable strategy for increasing problem identification. To ensure that older adults receive needed screening, assessment, and intervention services, stepped-up identification efforts by health care providers and multitiered, nontraditional case-finding methods within the community are essential (Raschko, 1990; DeHart and Hoffmann, 1995).

Most older adults see a medical practitioner several times per year, often for conditions that lend themselves to collateral discussion of the patients' drinking habits. Thus the primary care setting provides an opportunity for screening that is currently underutilized, as is the hospital (Adams et al., 1992). Home health care providers have unparalleled opportunities to observe isolated, homebound seniors for possible problems and, if substance abuse is suspected, administer a nonthreatening screen.

Identification of substance abuse among older adults should not be the purview of health care workers alone. Friends and family of older adults and staff of senior centers, including drivers and volunteers who see older adults on a regular basis, are intimately acquainted with their habits and daily routines. Frequently they are in the best position to detect those behavioral changes that signal a possible problem. Leisure clubs, health fairs, congregate meal sites, Meals-On-Wheels, and senior day care programs also provide venues in which older adults can be encouraged to self-identify. The National Council on Aging, for example, sponsors a depression awareness program for use in senior programs that features a computerized, self-administered depression test. The computer offers anonymity and immediate results. It also avoids confidentiality problems and seems to offer a feasible model for mass screening of drinking problems. See Figure 4-1 for an example of successful community case finding.

Figure 4-1

Spokane's Gatekeeper Program

The Elderly Services at the Community Mental Health Center in Spokane, Washington, created the Gatekeeper Program to recruit, organize, and train nontraditional referral sources who may be in contact with at-risk older adults during their daily activities. The Gatekeepers—apartment managers, meter readers, bank personnel, postal carriers, utility repair personnel, and others—are the Elderly Services' eyes within the community. They are trained to identify at-risk older adults and provide referrals back to the program, which in turn will send a case manager and a nurse team leader to the individual's home for an evaluation. The program integrates case management for older adults with mental health and substance abuse treatment services, with the Gatekeepers serving as the case-finding component. Overall, the Gatekeepers now account for 4 out of every 10 admissions to this multidisciplinary in-home evaluation, treatment, and case management program. Nearly half of the older adults treated specifically for substance abuse were referred by the Gatekeepers (Raschko, 1990).

In contrast to younger substance abusers whose problems are frequently identified as a result of an action initiated by a family member, spouse, employer, school, police, or the courts, a substantial proportion of older adults' substance abuse problems remains undetected. Unless health, social service, and community service providers understand that alcohol and prescription drugs can pose serious problems for older adults and take the initiative in getting them the help they need, quality of life will be diminished, independence compromised, and physical deterioration accelerated.

Screening for Alcohol and Prescription Drug Abuse

Barriers to Screening

Ageist assumptions, failure to recognize symptoms, and lack of knowledge about screening are among the barriers that inhibit family members, service providers, and others concerned about older adults from raising the issue of alcohol and prescription drug abuse. Although these are the two primary substances of abuse now, providers are likely to see more marijuana and other drug use among adults over 60 in the coming years.

Health care providers sometimes share the ageist attitudes discussed in Chapter 1. They may not be trained to recognize signs of substance abuse and furthermore may be unwilling to listen attentively to older patients. The latter type of provider often dismisses older patients' observations about their own symptoms and attempts at self-diagnosis and attributes all complaints or changes in health status to the aging process.

Family members also can impede problem recognition. Biases persist against perceiving older adults as alcoholics or recognizing that drinking or prescription drugs, rather than age or disease, may be a cause or chief contributor to sleep problems, mood changes, or memory deficits (Finlayson, 1995b). Another assumption inhibiting identification is the belief that older adults do not respond to treatment, a misperception flatly contradicted by studies showing that older adults are more likely to complete treatment (Linn, 1978; Cartensen et al., 1985) and have outcomes that are as good as or better than those of younger patients when treated as outpatients (Atkinson, 1995; in press).

Identifying an older abuser of alcohol or prescription drugs can also be complicated by the number of other conditions with similar symptoms. Warning signs can be easily confused with or masked by concurrent illnesses

and chronic conditions. For example, sleep problems, falls, anxiety, or confusion can be attributed to a variety of nonalcohol-related diseases and disorders or dismissed as symptomatic of old age. Screeners who use amount and frequency levels appropriate for younger adults as a gauge can also miss an older adult's alcohol problem (see Chapter 2).

Finally, many health care and social service providers are unaware that effective, validated instruments are available for screening older adults or are intimidated by the prospect of using them. Many screens, moreover, take only a few minutes to administer and require little or no specialized training to score and interpret. Screening instruments are discussed in more detail below.

Who and When To Screen

Ideally, every 60-year-old should be screened for alcohol and prescription drug abuse as part of his or her regular physical examination. However, problems can develop after the screening has been conducted, and concurrent illnesses and other chronic conditions may mask abuse. Although no hard and fast rules govern the timing of screening, the Panel recommends screening or rescreening if the physical symptoms listed in Figure 4-2 are present or if the older person is undergoing major life changes or transitions such as those discussed below.

As older patients undergo key life transitions or take on new and stressful roles, vulnerability to alcohol or prescription drugs may increase. Risk factor life transitions include menopause, a newly "empty nest," and approaching retirement. Assuming new roles such as caretaker for an ailing relative or custodian of young grandchildren also makes older adults more vulnerable. Any of these changes should trigger an alcohol screen.

Figure 4-2
Physical Symptom Screening Triggers

- **Sleep complaints; observable changes in sleeping patterns; unusual fatigue, malaise, or daytime** drowsiness; apparent sedation (e.g., a formerly punctual older adult begins oversleeping and is not ready when the senior center van arrives for pickup)
- Cognitive impairment, memory or concentration disturbances, disorientation or confusion (e.g., family members have difficulty following an older adult's conversation, the older adult is no longer able to participate in the weekly bridge game or track the plot on daily soap operas)
- Seizures, malnutrition, muscle wasting
- Liver function abnormalities
- Persistent irritability (without obvious cause) and altered mood, depression, or anxiety
- Unexplained complaints about chronic pain or other somatic complaints
- Incontinence, urinary retention, difficulty urinating
- Poor hygiene and self-neglect
- Unusual restlessness and agitation
- Complaints of blurred vision or dry mouth
- Unexplained nausea and vomiting or gastrointestinal distress
- Changes in eating habits
- Slurred speech
- Tremor, motor uncoordination, shuffling gait
- Frequent falls and unexplained bruising

Introducing the Topic of Screening

Depending on the setting, the topic of screening can be introduced in a number of ways. Self-administered and self-scored mass screenings can be a part of a larger presentation at an American Association of Retired Persons or leisure club meeting on the topic of alcohol's effects on older adults. Self-administered but machine-scored computerized screens can be offered as part of a similar program conducted at senior centers, retirement homes, or assisted living residences with access to computers.

Visiting nurses and home health aides can integrate a brief alcohol screen into the list of health questions normally posed to patients. For example, in asking about medication, the health care provider could say, "We understand more today about the effects of even small amounts of alcohol on medication, and I want to be sure that nothing is interfering with your coumadin or affecting your overall progress in any way. Let's review how much alcohol you're drinking and take a look at all your medications."

It is preferable to use standardized screening questionnaires, but friendly visitors, Meals-On-Wheels volunteers, caretakers, and health care providers also can interject screening questions into their normal conversations with older, homebound adults. Comfort with this line of questioning will depend on the person's relationship with the older person and the responses given; however, anyone who is concerned about an older adult's drinking practices can try asking direct questions, such as

- "Do you ever drink alcohol?"
- "How much do you drink when you do drink?"
- "Do you ever drink more than four drinks on one occasion?"
- "Do you ever drink and drive?"
- "Do you ever drink when you're lonely or upset?"
- "Does drinking help you feel better [or get to sleep more easily, etc.]? How do you feel the day after you have stopped drinking?"
- "Have you ever wondered whether your drinking interferes with your health or any other aspects of your life in any way?"
- "Where and with whom do you typically drink?" (Drinking at home alone signals at-risk or potentially abusive drinking.)
- "How do you typically feel just before your first drink on a drinking day?"
- "Typically, what is it that you expect when you think about having a drink?" (Note: Positive expectations or consequences of alcohol use in the presence of negative affect and inadequate coping skills have been associated with problem drinking.)

If less direct questioning seems appropriate, other useful questions for identifying problematic alcohol or prescription drug use include

- "Are you having any medical or health problems? What symptoms do you have? What do you think these mean? Have you felt this way before?"
- "Do you see a doctor or other health care provider regularly? When was the last time? Do you see more than one? Why? Have you switched doctors recently? Why?"
- "Have you experienced any negative or unwanted events that altered the way you lived (in the last 5 years)? Any since we last met? How much of an impact did the event have on the way you lived or felt? What feelings or beliefs did it cause or change? Do you believe that you are coping with the changes in a healthy fashion? How (specifically) do you manage (control) the circumstances (consequences) of the problem(s) or event(s)?"
- "What prescription drugs are you taking? Are you having any problems with them? May I see them?" (This question will need to

be followed by an examination of the actual containers to ascertain the drug name, prescribed dose, expiration date, prescribing physician, and pharmacy that filled each prescription. Note whether there are any psychoactive medications. Ask the patient to bring the drugs in their original containers.)

- "Where do you get prescriptions filled? Do you go to more than one pharmacy? Do you receive and follow instructions from your doctor or pharmacist for taking the prescriptions? May I see them? Do you know whether any of these medicines can interact with alcohol or your other prescriptions to cause problems?"
- "Do you use any over-the-counter drugs (nonprescription medications)? If so, what, why, how much, how often, and how long have you been taking them?"

Nonmedical caretakers, volunteers, and aides may opt to ask only the four CAGE questions, reproduced in Figure 4-3 and discussed in the Screening Instruments section. If the older adult answers yes to any of the four, refer to a clinician for evaluation. If the questioner suspects that prescription drug abuse may be occurring and the older adult is defensive about his or her use, confused about various prescription drugs, seeing more than one doctor, or using more than one pharmacy, a clinician should probably be notified to probe further. Other warning signs that may emerge in conversation and should prompt a more in-depth screen or an assessment include

- Excessively worrying about whether prescription psychoactive drugs are "really working" to alleviate numerous physical complaints; complaints that the drug prescribed has lost its effectiveness over time (evidence of tolerance)
- Displaying detailed knowledge about a specific psychoactive drug and attaching great significance to its efficacy and personal impact
- Worrying about having enough pills or whether it is time to take them to the extent that other activities revolve around the dosage schedule
- Continuing to use and to request refills when the physical or psychological condition for which the drug was originally prescribed has or should have improved (e.g., prescription of sleeping pills after the death of a loved one); resisting cessation or decreasing doses of a prescribed psychoactive drug
- Complaining about doctors who refuse to write prescriptions for preferred drugs, who taper dosages, or who don't take symptoms seriously
- Self-medicating by increasing doses of prescribed psychoactive drugs that aren't "helping anymore" or supplementing prescribed drugs with over-the-counter medications of a similar type
- Rating social events by the amount of alcohol dispensed
- Eating only at restaurants that serve alcoholic beverages (and wanting to know whether they do in advance)
- Withdrawing from family, friends, and neighbors
- Withdrawing from normal and life-long social practices
- Cigarette smoking
- Involvement in minor traffic accidents (police do not typically suspect older adults of alcohol abuse and may not subject them to Breathalyzer™ and other tests for sobriety)
- Sleeping during the day
- Bruises, burns, fractures, or other trauma, particularly if the individual does not remember how and when they were acquired
- Drinking before going to a social event to "get started"; gulping drinks, guarding the

supply of alcoholic beverages, or insisting on mixing own drinks
- Changes in personal grooming and hygiene
- Expulsion from housing
- Empty liquor, wine, or beer bottles or cans in the garbage or concealed under the bed, in the closet, or in other locations.

Asking Screening Questions

Screening questions should be asked in a confidential setting and in a nonthreatening, nonjudgmental manner. Many older adults are acutely sensitive to the stigma associated with alcohol and drug abuse and are far more willing to accept a "medical" as opposed to a "psychological" or "mental health" diagnosis as an explanation for their problems. Prefacing questions with a link to a medical condition can make them more palatable. For example, "I'm wondering if alcohol may be the reason why your diabetes isn't responding as it should," or, "Sometimes one prescription drug can affect how well another medication is working. Let's go over the drugs you're taking and see if we can figure this problem out." It is vitally important to avoid using stigmatizing terms like *alcoholic* or *drug abuser* during these encounters.

Another technique that may help when talking with older adults is active listening (Egan, 1994). The four components of active listening are (1) observing and reading the person's nonverbal behavior—posture, facial expressions, movement, and tone of voice; (2) listening to and understanding the person's verbal communication; (3) listening in context, that is, to the whole person in the context of the social settings of his or her life; and (4) listening to sour notes, that is, things the person says that may have to be challenged. Motivational interviewing techniques also can be applied when screening older adults. Essentially this approach, which is described in more detail in Chapter 5, assumes that the patient is both capable of and responsible for initiating needed changes. Motivational interviewing is nonconfrontational, egalitarian, and supportive.

When screening anyone, especially older adults, empathy is crucial. However, in attempting to be nonconfrontational and circumspect, it is also important to avoid using euphemisms that minimize the problem. Older adults with alcohol and prescription drug problems are just as likely to engage in denial and rationalization as younger adults; those who are inadvertently misusing a prescription drug or who are unaware that their customary drink before dinner may now be causing problems are unlikely to be defensive about acknowledging the need to change.

Cognition and Collateral Reporting

Impaired cognition interferes with screening, making it difficult to obtain complete and accurate answers. Although it is important to respect the older adult's autonomy, collateral participation from family members or friends may be necessary in situations where a coherent response is unlikely. In this case, the screener should first ask for the older adult's permission to question others on his or her behalf. If possible, the screen should be administered to collaterals in private, using a nonconfrontational approach. "I'm concerned about your father's deteriorating condition and wonder if his use of alcohol may be having a negative impact. Have you or anybody else in the family had any concerns about his drinking?" Because circumstances differ within families, family members may not know or may be unwilling to respond honestly to that query. Another question that skilled clinicians find useful in collateral screening is, "Has anybody in your family ever had a problem with drinking?" A positive response suggests that a problem may exist and that more in-depth questioning should follow.

Sometimes collateral screening unleashes a family member's simmering anger toward the

older adult for both past and current alcohol-related behavior. It is important to be alert to this possibility and to be prepared to work with the family member to discourage a confrontation with the older adult when the screen concludes.

Screening Instruments

The CAGE Questionnaire (Ewing, 1984) and the Michigan Alcoholism Screening Test—Geriatric Version (MAST-G) (Blow et al., 1992a) are two well-known alcohol screening instruments that have been validated for use with older adults. One of the most widely used alcohol screens, the CAGE consists of four questions, can be self-administered even by those with low literacy reading skills (see Figure 4-3), and can be modified to screen for use of other drugs. Positive responses on the CAGE are for lifetime problems, not current ones. Before administering the CAGE, the MAST-G, or any other screen, ascertain that the person does currently drink alcohol and that the questions that are endorsed are for problems that they have experienced recently, usually within the last year.

Figure 4-3
The CAGE Questionnaire

1. **Have you ever felt you should cut down** on your drinking?
2. Have people **annoyed** you by criticizing your drinking?
3. Have you ever felt bad or **guilty** about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (**eye opener**)?

Scoring: Item responses on the CAGE are scored 0 for "no" and 1 for "yes" answers, with a higher score an indication of alcohol problems. A total score of 2 or greater is considered clinically significant.

Source: Ewing, 1984.

Although two or more positive responses are considered indicative of an alcohol problem, a positive response to any one of these questions should prompt further exploration among older adults. The CAGE is most effective in identifying more serious problem drinkers, including those with abuse and dependence, and less effective for women problem drinkers than their male counterparts.

The MAST-G was developed specifically for older adults (see Figure 4-4) and has high sensitivity and specificity among older adults recruited from a wide range of settings, including primary care clinics, nursing homes, and older adult congregate housing locations.

Although the Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 1992) has not been evaluated for use with older adults, it has been validated cross-culturally. Because there are few culturally sensitive screening instruments, the AUDIT (in the opinion of the Consensus Panel) may prove useful for identifying alcohol problems among older members of ethnic minority groups (see Appendix B).

Laboratory tests are generally used only to supplement the screens detailed above (Beresford et al., 1990; Finlayson and Hurt, in press). Some researchers have found, however, that certain abnormalities associated with alcoholism appeared more often among alcoholics older than 64 than among younger alcoholics. Those abnormalities appeared in tests of mean corpuscular volume, uric acid, serum albumin, mean corpuscular hemoglobin, and aspartate aminotransferase (Hurt et al., 1988).

Communicating Positive Screening Results

To ease the process of communicating positive screening results to older patients, the Panel recommends the following approach:

- Describe the impact that alcohol or prescription drug abuse is having on the older adult's health or functional status: "The screening results indicate that alcohol may be having a negative effect on your blood pressure."
- Immediately follow up by noting: "This is very treatable. Cutting down on the amount you drink" or "giving up drinking altogether" or "reducing your use of chlordiazepoxide (Librium)" or "using other methods to help you sleep . . . will help you maintain your independence" or "help keep you out of a nursing home" or "decrease the likelihood of future hip fractures" or "keep you from getting so confused." In other words, spell out how reduction or cessation of use will improve the person's life. Most problem drinkers cannot address their problems by reducing use, so emphasize the importance of abstinence by saying something like: "Though I strongly recommend you stop altogether, cutting down is a good start."
- Present the options for addressing the problem: If the problem seems severe, "I'd like to do a complete assessment (or refer you to someone for assessment) so we know how to proceed"; or if the problem appears to be in the early stages of development, "I'd like to see you change your drinking habits to no more than one beer (drink) per day. We'll monitor your progress over the next few weeks and see if this will help with your hypertension." This is a good time to explore the patient's willingness to change by adding, for example, "Would you be willing to change your drinking habits if the other problems we have discussed improve?"
- Occasionally, a situation may appear dire, and the clinician suspects that the older adult needs to be detoxified. In this case, admission to an inpatient unit for detoxification may be the most prudent choice. Referral to an outpatient detoxification center that can monitor the person daily is appropriate if there is social support at home.

Before discussing results with an older adult, clinicians must be prepared with information about community resources available to assist in coping with this problem (e.g., meeting dates, times, and locations of Alcoholics Anonymous and other self-help recovery groups whose membership is largely 55 and older; contact and eligibility information for treatment programs that respond to the special needs of older adults); the older adult's available supports (e.g., Is transportation available? Is the recommended program affordable or covered by insurance?); and the older adult's special needs (e.g., Is the program bilingual or wheelchair accessible?). See Chapter 5 for more on treatment options. In addition, a strategy for responding to denial or refusal to follow through with a plan of action should be in place. With the agreement of an older adult involved in a self-help group or treatment program, clinicians can broker an introduction to a peer "who's been there." Frequently, these "veterans" will accompany prospective members to meetings and mentor them through the treatment process.

For some older adults coming to grips with an alcohol or prescription drug problem, repeated contacts will be necessary before they are willing to cooperate with a referral. Clinicians have observed that this process is akin to planting and nurturing a seed. Bringing the seed to fruition, however, ultimately depends on the older adult.

Figure 4-4

Michigan Alcoholism Screening Test—Geriatric Version (MAST-G)

1. After drinking have you ever noticed an increase in your heart rate or beating in your chest?	YES	NO
2. When talking with others, do you ever underestimate how much you actually drink?	YES	NO
3. Does alcohol make you sleepy so that you often fall asleep in your chair?	YES	NO
4. After a few drinks, have you sometimes not eaten or been able to skip a meal because you didn't feel hungry?	YES	NO
5. Does having a few drinks help decrease your shakiness or tremors?	YES	NO
6. Does alcohol sometimes make it hard for you to remember parts of the day or night?	YES	NO
7. Do you have rules for yourself that you won't drink before a certain time of the day?	YES	NO
8. Have you lost interest in hobbies or activities you used to enjoy?	YES	NO
9. When you wake up in the morning, do you ever have trouble remembering part of the night before?	YES	NO
10. Does having a drink help you sleep?	YES	NO
11. Do you hide your alcohol bottles from family members?	YES	NO
12. After a social gathering, have you ever felt embarrassed because you drank too much?	YES	NO
13. Have you ever been concerned that drinking might be harmful to your health?	YES	NO
14. Do you like to end an evening with a nightcap?	YES	NO
15. Did you find your drinking increased after someone close to you died?	YES	NO
16. In general, would you prefer to have a few drinks at home rather than go out to social events?	YES	NO
17. Are you drinking more now than in the past?	YES	NO
18. Do you usually take a drink to relax or calm your nerves?	YES	NO
19. Do you drink to take your mind off your problems?	YES	NO
20. Have you ever increased your drinking after experiencing a loss in your life?	YES	NO
21. Do you sometimes drive when you have had too much to drink?	YES	NO
22. Has a doctor or nurse ever said they were worried or concerned about your drinking?	YES	NO
23. Have you ever made rules to manage your drinking?	YES	NO
24. When you feel lonely, does having a drink help?	YES	NO

Scoring: Five or more "yes" responses are indicative of an alcohol problem. For further information, contact Frederic C. Blow, Ph.D., at University of Michigan Alcohol Research Center, 400 E. Eisenhower Parkway, Suite A, Ann Arbor, MI 48108; (734) 998-7952.

Source: Blow, F.C.; Brower, K.J.; Schulenberg, J.E.; Demo-Dananberg, L.M.; Young, J.P.; and Beresford, T.P. The Michigan Alcoholism Screening Test—Geriatric Version (MAST-G): A new elderly-specific screening instrument. *Alcoholism: Clinical and Experimental Research* 16:372, 1992.

© The Regents of the University of Michigan, 1991.

Communicating Negative Screening Results

The process of conveying negative screening results provides an important opportunity to reinforce healthy practices and educate older adults about the impact that alcohol and prescription drugs have on aging systems. However, even older adults who have had negative screening results may need screening repeated in the future. As discussed previously, life events render older adults vulnerable to developing problems; as the changes occur, screening questions should be asked again and the benefits of maintaining healthy habits reemphasized.

Assessment

For older adults with positive screens, an assessment is needed to confirm the problem, to characterize the dimensions of the problem, and to develop an individualized treatment plan. For purposes of insurance or other funding resources, the assessment should follow criteria in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) (American Psychiatric Association, 1994) or other relevant criteria, bearing in mind that these criteria may not apply directly to planning older adults' treatment. The unqualified application of such criteria is problematic in older adult populations because the symptoms of other medical diseases and psychiatric disorders overlap to a considerable extent with substance-related disorders.

In addition, as discussed in Chapter 2, the altered social roles and circumstances of older adults may further reduce the applicability of the criteria. For example, interference with occupational activities or work obligations may no longer be relevant as a manifestation of maladaptive functioning, although the emphasis for a retired person can still be placed on maintaining a dwelling, managing finances, or participating in social or recreational activities. "Recurrent substance use in situations in which it is physically hazardous," a substance abuse criteria in the DSM-IV (American Psychiatric Association, 1994, p. 183), need not mean driving drunk: Climbing a ladder, crossing a street, or taking a bath while impaired by alcohol is dangerous for a frail, older person.

With respect to tolerance—one of the DSM-IV criteria for a diagnosis of substance dependence—the aging process itself, as well as other concurrent medical diseases commonly found in older patients, lowers the threshold for onset of physiological dependence on prescription drugs. The presence of tolerance among older adults is not necessarily characteristic of substance-related psychological dependence. Conversely, the absence of tolerance to alcohol does not necessarily mean that an older adult does not have a drinking problem. To be useful in assessing older adults, the DSM-IV criteria must be interpreted age-appropriately. (See Figure 2-3, which presents the DSM-IV criteria for substance dependence as they apply to older adults with alcohol problems.)

Because the assessment process can be time-consuming and expensive, the Institute of Medicine (IOM) recommends (and the Panel supports) a sequential approach that looks at various dimensions of an older adult's suspected problem in stages so that unnecessary tests are not conducted (Institute of Medicine, 1990).

Substance Abuse Assessment Instruments

Although informed clinical judgment is essential for a sound assessment, validated substance abuse assessment instruments can provide a useful structured approach for many clinicians as well as a convenient checklist of items that

should be consistently evaluated during the assessment. In general, specialized assessment is conducted by treatment program personnel or specially trained health care providers. As described by the IOM, structured assessment interviews "possess (at least potentially) the desired qualities of quantifiability, reliability, validity, standardization, and recordability" (Institute of Medicine, 1990, pp. 267–268).

Based on their experience, the Consensus Panelists recommend the use of two structured assessments with older adults: the Structured Clinical Interview for DSM-III-R (SCID) (Spitzer and Williams, 1985) and the Diagnostic Interview Schedule (DIS) for DSM-IV (Robins et al., 1981).

The SCID is a multimodule assessment that covers

- Substance use disorders
- Psychotic disorders
- Mood disorders
- Anxiety disorders
- Somatoform disorders
- Eating disorders
- Adjustment disorders
- Personality disorders.

It takes a trained clinician approximately 30 minutes to administer the 35 SCID questions that probe for alcohol abuse or dependence.

The DIS is a highly structured interview that does not require clinical judgment and can be used by nonclinicians. The DIS assesses both current and past symptoms and is available in a computerized version. It has been translated into a number of languages including Spanish and Chinese.

Special Assessments

For some older adults, it may be impossible to understand the true impact of their alcohol and drug use or to recommend appropriate treatment services without a full assessment of their physical, mental, and functional health.

Assessing Functional Abilities

Functional health refers to a person's capacity to perform two types of everyday tasks: activities of daily living (ADLs), which include ambulating, bathing, dressing, feeding, and using the toilet, and instrumental activities of daily living (IADLs), which include managing finances, preparing meals, shopping, taking medications, and using the phone. Limitations in these domains, sometimes referred to as *disabilities*, can result in an inadequate diet, mismanagement of medications or finances, or other serious problems. These disabilities are major risk factors for institutionalization and are more likely than physical illness or mental health problems to prompt older adults to seek treatment.

Impairments in functional abilities are common in older adults with medical and psychiatric disorders. For instance, 90 percent of adults over the age of 65 require the use of glasses and 50 percent of adults over 65 have some degree of hearing loss (Hull, 1989; Plomp, 1978). Sensory impairments affect older adults in subtle ways that are not always immediately obvious to health practitioners but need to be anticipated, identified, and incorporated into treatment practices. Clinicians should ensure that older patients, for example, can read their prescriptions or hear what is said in a group therapy session. When not considered and compensated for, functional impairments can obstruct treatment. For example, it would be futile to enroll an older patient who is obese and has limited mobility in a program housed in a facility with steep flights of stairs and no elevator. Likewise, it makes little sense to recommend an evening program to older adults who cannot drive at night and do not have someone else to drive them.

Alcohol use can diminish IADLs and ADLs. Although alcohol-related functional impairments are potentially reversible, they should be considered when planning a

treatment regimen. There are known complications of and differences between alcohol use in men and women related to compromised functional abilities and ADLs. In a recent study of older adults with a former history of alcohol abuse, impairment in ADLs was twice as common in women as in men (Ensrud et al., 1994). In addition, alcohol use was more strongly correlated with functional impairment than were smoking, age, use of anxiolytics, stroke, or diminished grip strength.

To identify functional impairments, the Panel recommends measuring the ADLs and the IADLs with the instruments in Appendix B. Another useful instrument is the Medical Outcomes Study 36-Item Short Form Health Survey (SF-36), a self-report questionnaire that measures health-related quality of life, including both ADLs and IADLs (McHorney et al., 1994). Although this instrument is more comprehensive, it is also more difficult to use because of complex scoring of the various subscales. The SF-36 does provide, however, a comprehensive assessment of health and not just functional abilities. These instruments can be used by health care providers in a range of settings.

Assessing Comorbid Disorders

The relationship between alcohol use and a coexisting physical or mental disorder can take many different forms. At one extreme, medical and psychiatric problems can coexist with alcohol use with no specific relationship to drinking. Alternatively, those problems may be precipitating or maintenance factors for drinking. The use of alcohol to anesthetize pain is an example of a maintenance factor; alcohol use can then become its own problem or cause drug interaction problems with prescribed pain medications. Medical or psychiatric problems such as alcoholic cirrhosis or cognitive deficits are other possible consequences of drinking. Even when the link is not so direct, alcohol use can worsen other conditions such as hypertension or congestive heart failure.

The existence of comorbid medical and psychiatric disorders will influence treatment choice and priorities and will affect treatment outcome. Frail or medically compromised alcohol abusers, for example, may require more intensive monitoring during the detoxification period of treatment than their more robust peers. When disorders such as uncontrolled hypertension or depression are detected, reducing alcohol consumption becomes a priority; until drinking is curbed, medication prescribed for those conditions will not work effectively. In contrast, for older adults suffering from chronic pain, the priority would be to identify an effective painkiller, then taper the amount of alcohol consumed.

Physical comorbidities

Studies have shown that the most common health problem among alcohol-dependent older adults is alcoholic liver disease. Chronic obstructive pulmonary disease, peptic ulcer disease, and psoriasis also are found much more frequently in older alcoholics than in older adults with no alcohol problems. Alcohol also appears to be a risk factor for myopathy, cerebrovascular disease, gastritis, diarrhea, pancreatitis, cardiomyopathy, sleep disorders, HIV/AIDS-related diseases, and both intentional and unintentional injuries (Tobias et al., 1989).

Malnutrition among older adults may be due to such conditions as poverty or a cognitive dysfunction and is especially important to diagnose and correct. Older substance-abusing adults on fixed incomes frequently have to choose among buying food, the prescriptions they need to manage illness, or the substance they abuse. If malnutrition is caused by economic conditions, it is appropriate for social service agencies or private food-related programs to be brought into the equation to help alleviate the problem.

Poor nutrition also may stem from a life change such as a spouse dying: An older person may stop preparing meals if he or she no longer has someone to cook for or eat with; a bereaved or frail person may not have the energy to shop or cook. Many adults with alcohol problems, however, "drink their calories" instead of eating food. Along these same lines, a provider should determine whether or not the older person is dehydrated, another possible indicator of alcohol problems.

Acute alcohol withdrawal syndrome is more protracted and severe in older adults than in younger adults (Brower et al., 1994; Liskow et al., 1989). Because there is no research on the recent practice of outpatient detoxification for older adults, very careful assessment is warranted before detoxification from any drug; outpatient detoxification may not be appropriate for older adults who are frail or who have a comorbidity.

Psychiatric comorbidities

Data from the Epidemiologic Catchment Area (ECA) study have strengthened support for a possible link between alcohol use and abuse and the development of other psychiatric illnesses (Regier et al., 1990). Adults with a lifetime diagnosis of alcohol abuse or dependence had nearly three times the risk of being diagnosed with another mental disorder. Comorbid disorders associated with alcohol use include anxiety disorders, affective illness, cognitive impairment, schizophrenia, and antisocial personality disorder (Finlayson et al., 1988; Blow et al., 1992b; Blazer and Williams, 1980; Saunders et al., 1991; Oslin and Liberto, 1995; Wagman et al., 1977). According to one study, older alcohol abusers are more likely to have triple diagnoses—alcohol, depression, and personality disorders—whereas younger substance abusers are more likely to have diagnoses of schizophrenia (Speer and Bates, 1992).

Cognitive impairments

The presence of cognitive impairment or dementia significantly alters treatment decisions. It is particularly important to distinguish between dementia and delirium, which are often mistaken for each other by clinicians diagnosing older patients (see Figure 4-5).

Dementia is a chronic, progressive, and generally irreversible cognitive impairment sufficient to interfere with an individual's daily living. Dementia will also limit an individual's ability to interact in traditional group settings. Common causes of dementia include Alzheimer's disease, vascular disorders (e.g., multi-infarct dementia), and alcohol-related dementia. Dementia also makes it more difficult to monitor outcomes of drinking (patients may forget they drank), to get into treatment, and to benefit from the treatment.

Delirium is a potentially life-threatening illness that requires acute intervention—usually hospitalization. The cognitive losses experienced with delirium, unlike the effects of dementia, can often be reversed with proper medical treatment.

Dementia

Changes in cognition are not unusual as people age, and they increase in frequency with each decade. Such changes, which are experienced in varying degrees, include minor short-term memory loss and difficulty with certain mathematical functions. However, significant memory loss, impaired abstract thinking, confusion, difficulty communicating, extreme emotional reactions and outbursts, and disorientation to time, place, and person are signs of cognitive impairment and *are not part of the normal aging process.*

Dementia can range from a mild level of cognitive impairment that is easily managed to a severe stage that may require intensive treatment and nursing home care. Common symptoms of dementia are presented in Figure

4-5. Symptoms described may not be equally present in all older adults experiencing dementia. The most common causes of dementia in older adults are Alzheimer's disease and vascular dementia.

Screening for significant cognitive dysfunction can be accomplished easily by any of a number of screening instruments. Patients who have been medically detoxified should not be screened for several weeks after detoxification. Until they are fully recovered, they may exhibit some reversible cognitive impairment. The Panel recommends two screens: the Orientation/Memory/Concentration Test (Katzman et al., 1983), which is simple and can be completed in the office, and the Folstein Mini-Mental Status Exam (MMSE) (Folstein et al., 1975), which is an acceptable alternative. It should be noted that in the assessment of older problem drinkers who have recently (in the past 30 to 60 days) attained sobriety in an outpatient setting, the MMSE can be insensitive to subtle cognitive impairments. Furthermore, because the MMSE is weak on visual-spatial testing, which is likely to show some abnormality in many recent heavy drinkers, and does not include screening tests of abstract thinking and visual memory, the Panel recommends using the "draw-a-clock task" (Watson et al., 1993) and the Neurobehavioral Cognitive Status Examination (NCSE) (Kiernan et al., 1987) as supplements.

Figure 4-5
Comparison of Dementia and Delirium: Characteristics and Causes

	Dementia	Delirium
Characteristics	• Impairments in short- and long-term memory, abstract thinking, and judgment • Aphasia (language disorder) • Apraxia (inability to carry out motor activities despite intact comprehension and motor function) • Agnosia (inability to recognize or identify items despite intact sensory function) • Constructional difficulty (inability to copy three-dimensional figures, assemble blocks, or arrange sticks in specific designs) • Personality change or alteration and accentuation of premorbid traits • Mood disturbances • Loss of self-care abilities	• Inability to appreciate and respond normally to the environment, often with altered awareness, disorientation, inability to process visual and auditory stimuli, and other signs of cognitive dysfunction • Potentially life-threatening • Acute onset • Clouding of consciousness • Reduced wakefulness • Disorientation to time and space • Increased motor activity (e.g., restlessness, plucking, picking) • Impaired attention and concentration • Impaired memory • Anxiety, suspicion, and agitation • Variability of symptoms over time • Misinterpretation, illusions, or hallucinations • Disrupted thinking, delusions, speech abnormalities

Figure 4-5 (Continued)

	Dementia	Delirium
Causes	**Most Common Causes** ▪ Alzheimer's disease ▪ Vascular dementia ▪ Alcohol-related dementia **Common Metabolic/Toxic Causes** ▪ Chronic drug-alcohol-nutritional abuse (e.g., Wernicke-Korsakoff syndrome) ▪ Organ system failure ▪ Anoxia ▪ Folic acid deficiency ▪ Hypothyroidism ▪ Bromide intoxication ▪ Hypoglycemia **Common Infectious Causes** ▪ Neurosyphilis paresis (a syphilitic infection manifested as dementia, seizures, and problems walking and standing) ▪ AIDS/HIV-related disorders ▪ Meningitis ▪ Encephalitis **Other Common Causes** ▪ Huntington's Chorea ▪ Parkinson's disease ▪ Jakob-Creutzfeldt disease ▪ Lewy body's dementia	**Common Intracranial Causes** ▪ Infections (e.g., meningitis, encephalitis) ▪ Seizures ▪ Stroke ▪ Subdural hematomas ▪ Tumors **Common Extracranial Causes** ▪ Anesthesia ▪ Drug–drug or alcohol–drug interactions ▪ Intoxication and/or withdrawal from alcohol or drugs (particularly psychoactive drugs) ▪ Toxic effects of prescribed or over-the-counter drugs ▪ Giant cell arteritis (a chronic inflammatory process involving the extracranial arteries) ▪ Hip fracture ▪ Hydrocephalus (increased fluid in the brain) ▪ Hypercapnia (reduced ventilation often associated with chronic obstructive pulmonary disease) ▪ Infections ▪ Dehydration ▪ Malnutrition ▪ Metabolic disturbances (e.g., liver or kidney failure, electrolyte disturbances, hyper- or hypoglycemia, diabetes, thyroid disorders) ▪ Myocardial infarction (heart attack) ▪ Sudden environmental changes ▪ Depression

Delirium

Delirium, also known as *acute confusional state* and *acute brain syndr me*, is an alteration of mental status that can usually be reversed with medical treatment. Figure 4-5 presents the characteristics of this syndrome and its common causes. Symptoms presented may occur in any combination and may be intermittent. In addition to the causes listed in Figure 4-5, benzodiazepine use prior to hospitalization has

been demonstrated to be a significant risk factor for the development of delirium among hospitalized older adults. This suggests that these individuals had classical withdrawal delirium from the benzodiazepines or that mild withdrawal in addition to other risk factors greatly increases the incidence of delirium. The Confusion Assessment Method (CAM) (Inouye et al., 1990) is widely used as a brief, sensitive, and reliable screening measure for detecting delirium. The Panel recommends that a positive delirium screen be followed by careful clinical diagnostics based on DSM-IV criteria and that any associated cognitive impairment be followed clinically using the MMSE.

Other cognitive impairments

Alcohol abuse and dependence are directly correlated with other potential causes of cognitive impairment, including trauma from falls, motor vehicle crashes or other accidents, and the development of Wernicke-Korsakoff syndrome (Smith and Atkinson, 1997). The latter is clinically characterized by cognitive deficits (especially anterograde memory deficits), gait ataxia, and nystagmus. Its pathophysiology usually involves the lack of the vitamin thiamine. It is important to screen for Wernicke-Korsakoff syndrome because it is a potentially reversible cause of cognitive impairment (Victor et al., 1989; Grant, 1987).

The extent to which alcohol use interferes with performance on neuropsychological testing has been well reviewed (Victor et al., 1989; Grant et al., 1984). Several studies have demonstrated acute effects of alcohol on abstraction and visual-spatial problems but not on verbal skills. Less is known about the role of alcohol use in causing permanent cognitive changes. Studies have demonstrated that among nondemented alcoholics, abstinence leads to marked improvement in cognitive deficits (Brandt et al., 1983; Grant et al., 1984). However, Brandt and colleagues demonstrated that among subjects with prolonged periods of abstinence, there were long-term deficits in learning novel associations (Brandt et al., 1983). It should be noted that most of these patients were moderate consumers of alcohol, and all were healthy with no history of dementia. A more recent epidemiologic study of older African-American men found that increasing amounts of alcohol consumption were associated with worsening performance on dementia screening scales (Hendrie et al., 1996).

Affective disorders

Affective disorders, common in older patients, also influence treatment choices. For example, a patient with an affective disorder who takes psychotropic drugs requires a treatment program with a staff familiar with these medications. Suicidal patients require intensive inpatient programs and an immediate intervention. Significant depressive symptoms, which are a common reaction after detoxification, can be worse in older adults than in younger patients and may require prescribed medicines to alleviate the depression before the abuse or addiction therapy is resumed. As noted below, research in the area of mental health comorbidities supports these findings.

Comorbid depressive symptoms are not only common in late life, but are also an important factor in the course and prognosis of psychiatric disorders. Depressed alcoholics have been shown to have a more complicated clinical course of depression with an increased risk of suicide and more social dysfunction than nondepressed alcoholics (Conwell, 1991; Cook et al., 1991). Moreover, they were shown to seek more treatment. However, relapse rates for alcoholics did not appear to be influenced by the presence of depression. Alcohol use prior to late life has also been shown to influence treatment of late-life depression. Cook and colleagues found that a prior history of alcohol abuse predicted a more severe and chronic course for depression (Cook et al., 1991).

Screening instruments for depression can be extremely useful as methods of detecting significant affective illness and for monitoring changes in affective states. The Geriatric Depression Scale (GDS) Short Form (Sheikh and Yesavage, 1986) and the Center for Epidemiological Studies—Depression Scale (CES-D) (Radloff, 1977), reproduced in Appendix B, have been validated in older age groups although not specifically in older adults with addiction problems. The Panel recommends the CES-D for use in general outpatient settings as a screen for depression among older patients.

Sleep disorders

As discussed in Chapter 2, sleep disorders and sleep disturbances represent another group of comorbid disorders associated with excessive alcohol use and with aging (Oslin and Liberto, 1995; Wagman et al., 1977; Moeller et al., 1993). Older adults sometimes self-medicate their sleep disturbances with alcohol (Wagman et al., 1977): Panel members had all heard older patients say that drinking helps them sleep.

The Panel recommends that sleep history be recorded in a systematic way in order to both document the changes in sleep problems over time and heighten the awareness of sleep hygiene. The Pittsburgh Sleep Quality Index (Buysse et al., 1988) is useful as both a research and screening scale but is difficult for clinicians to interpret and cumbersome to use. Clinicians may opt to carefully document sleep patterns and disturbances themselves rather than use this instrument (Nitcher et al., 1993).

Other psychiatric disorders

There are other psychiatric disorders (e.g., schizophrenia, obsessive and compulsive behaviors) that complicate the treatment of abuse and addiction. In these instances, treatment options must be evaluated on a case-by-case basis, although all programs considered for referral should include medical and mental health personnel skilled in responding to those disorders.

Although suicide is not a specific psychiatric disorder, the Panel believes that there is a significant relationship among aging, alcohol use, and suicide. People older than 65 account for 25 percent of the national suicide rate (Conwell, 1991). Patients who attempt suicide require immediate and intensive inpatient therapy for as long as the illness persists. Providers must be alert to the possibility of major depression, which is common in older adults, evolving into suicidal tendencies. It helps if family and significant others, clergy, social workers, and home health care providers are knowledgeable about the warning signs for suicide, because these symptoms are more frequently manifested in nonclinical settings.

Moving the Older Adult Into Treatment

After determining that an older adult may benefit from a reduction in or complete abstention from alcohol use, the clinician must next assess the patient's understanding of this benefit. Many older adults may not know that their alcohol use is affecting their health. Because patient understanding and cooperation are essential both in eliciting accurate information and following through on the treatment plan prescribed, clinicians should use the assessment process as an opportunity to educate the older adult and to motivate him or her to accept treatment.

Interacting With Older Adults

Many health care professionals rarely interact with older adults. To facilitate the assessment process with this population, the Consensus Panel recommends that clinicians adhere to the following guiding principles:

- Areas of concern most likely to motivate older substance abusers are their physical

health, the loss of independence and function, financial security, and maintenance of independence.

- Assessment and treatment decisions must include the patient in order to be successful. This is particularly relevant for older adults, who may be very uncomfortable in formalized addiction treatment programs that do not include many of their peers or address their specific developmental and health needs.
- Depending on an individual's particular situation, it may be important to include family members in treatment or intervention discussions (understanding that children may vacillate between a desire to help and denial and that patient confidentiality must always be respected).
- Addiction is a chronic illness that ebbs and flows. Thus, patients' needs will change over time and will require different types and intensities of treatment.
- Because many older adults have several health care providers (e.g., visiting nurses, social workers, adult day care staff, religious personnel), it is important to include this network as a resource in assessment and in providing treatment.
- Given the complex health needs of older adults, health care providers may need assistance from experienced nonmedical personnel to adequately assess the totality of treatment issues and choices. Providers should be aware of their limitations both in providing addiction treatment and in assessing and treating mental or physical health needs.
- All treatment strategies must be culturally competent and, to the extent possible, incorporate appropriate ethnic considerations (e.g., rituals).
- Overarching continuity of care issues and considerations should be identified and addressed, especially in rural and minority communities where emergency room staff function as primary care providers.

The next chapter builds on these guiding principles in describing referral and treatment options for older adults with substance abuse problems.

5 Referral and Treatment Approaches

Once screening and assessment have identified a problem, the clinician and patient must choose the most appropriate treatment. The Consensus Panel recommends that the least intensive treatment options be explored first: *brief intervention, intervention,* and *motivational counseling.* Although these three approaches can be sufficient to address the problem for some older patients, for others they will function as *pretreatment strategies.* These less intensive options will not resolve the latter type of patients' alcohol or other drug problems but can move them into specialized treatment by helping them overcome resistance to and ambivalence about changing their drinking behavior.

Like treatment itself, pretreatment activities in some cases may be conducted best in the client's home and can be coupled with other personal or social services (Fredriksen, 1992; Graham et al., 1995b) or with home-based detoxification services (Cooper, 1995). This approach is ideal for the large number of at-risk older individuals who are homebound; it can be conducted by visiting nurses, housing authorities, and social workers. Community health services often have staff designated to make visits to older adults in their homes, and some in-home treatment programs have a visiting nurse who identifies and treats substance abuse in the home.

Least Intensive Options

Brief Intervention for At-Risk Drinkers

Research has shown that 10 to 30 percent of nondependent problem drinkers reduce their drinking to moderate levels following a brief intervention by a physician or other clinician. A brief intervention is one or more counseling sessions, which may include motivation-for-change strategies, patient education, assessment and direct feedback, contracting and goal setting, behavioral modification techniques, and the use of written materials such as self-help manuals (Fleming et al., 1997b). Brief intervention techniques have been used to reduce alcohol use in adolescents, in adults under age 65 who are nondependent problem drinkers, and most recently, in older adults (Blow, in press; Fleming et al., 1997a). All of these activities can be conducted by trained clinicians, home health care workers, psychologists, social workers, and professional counselors (e.g., physicians, nurses, physicians' assistants).

Brief intervention strategies range from relatively unstructured counseling and feedback to more formal structured therapy and rely heavily on concepts and techniques from the motivational psychology and behavioral self-control training literature (Miller and Taylor,

1980; Miller and Hester, 1986; Miller and Munoz, 1976; Miller and Rollnick, 1991). The goal is to motivate the problem drinker to change his behavior, not to assign blame. Drinking goals accordingly should be flexible, allowing the individual to choose drinking in moderation or abstinence.

In a trial conducted in Malmo, Sweden, in the late 1970s, non-older adult subjects (all under age 65) were advised in a series of health education visits to reduce their alcohol use. They subsequently demonstrated significant reductions in gamma-glutamyl transferase levels and health care utilization for up to 5 years after the brief intervention (Kristenson et al., 1983). The Medical Research Council trial, conducted in 47 general practitioners' offices in Great Britain, found significant reductions in alcohol use by the intervention group compared with the control group 12 months after the intervention (Wallace et al., 1988). The World Health Organization trial, conducted in 10 countries, found similar differences in alcohol use between the two groups (Babor and Grant, 1992). Meta-analyses found an effect size of 20 to 30 percent in studies conducted in health care settings (Bien et al., 1993; Kahan et al., 1995). There are several ongoing studies of brief alcohol interventions for older adults, one of which is described below on page 94.

Conducting brief interventions with older adults

Older adults present unique challenges to those applying brief intervention strategies for reducing alcohol consumption. Because many older at-risk and problem drinkers are ashamed about their drinking, intervention strategies need to be especially nonconfrontational and supportive. In addition, as discussed in Chapter 2, the consumption level that constitutes at-risk drinking is lower than that for younger individuals (Chermack et al., 1996), so even low levels can be dangerous. Chronic medical conditions may make it more difficult for clinicians to recognize the role of alcohol in decreases in functioning and quality of life. These issues must be kept in mind during brief interventions with this vulnerable population.

Following identification of at-risk or problem drinkers through screening techniques (see Chapter 4), a semistructured brief intervention can be conducted. An older adult-specific brief intervention should include the following steps:

1. Customized feedback on patient's responses to screening questions about drinking patterns and other health habits such as smoking and nutrition.
2. Discussion of types of drinkers in the United States and where the patient's drinking patterns fit into the population norms for his or her age group.
3. Reasons for drinking. This is particularly important because the practitioner needs to understand the role of alcohol in the context of the older patient's life, including coping with loss and loneliness.
4. Consequences of heavier drinking. Some older patients may experience problems in physical, psychological, or social functioning even though they are drinking below cutoff levels.
5. Reasons to cut down or quit drinking. Maintaining independence, physical health, financial security, and mental capacity can be key motivators in this age group.
6. Sensible drinking limits and strategies for cutting down or quitting. Strategies that are useful in this age group include developing social opportunities that do not involve alcohol, getting reacquainted with hobbies and interests from earlier in life, and pursuing volunteer activities, if possible.
7. Drinking agreement in the form of a prescription. Agreed-upon drinking limits that are signed by the patient and the practitioner are particularly effective in changing drinking patterns.

8. Coping with risky situations. Social isolation, boredom, and negative family interactions can present special problems in this age group.
9. Summary of the session.

One approach devised to facilitate brief interventions is known by the acronym *FRAMES*. This approach emphasizes

- **Feedback** of personal risk or impairment as derived from the assessment
- Personal **responsibility** for change
- Clear **advice** to change
- A **menu** of change options to increase the likelihood that an individual will find a responsive treatment (although multiple attempts may be necessary)
- An **empathic** counseling style
- Enhanced client **self-efficacy** and ongoing followup (Miller and Sanchez, 1994).

Panel members agree that when older adults are motivated to take action on their own behalf, the prognosis for positive change is extremely favorable. Key to inspiring motivation is the clinician's caring style, willingness to view the older adult as a full partner in his or her recovery, and capacity to provide hope and encouragement as the older adult progresses through the referral, treatment, and recovery process.

Intervention and Motivational Counseling

If the older problem drinker does not respond to the brief intervention, two other approaches—intervention and motivational counseling—should be considered.

Intervention

In an intervention, which occurs under the guidance of a skilled counselor, several significant people in a substance abuser's life confront the individual with their firsthand experiences of his or her drinking or drug use (Johnson, 1973; Twerski, 1983). The formalized process begins before the intervention and includes a progressive interaction between the counselor and the family or friends for at least 2 days before meeting with the patient. During this time, the counselor not only helps plan the intervention but also educates the family about substance abuse and its prevention (Johnson, 1973). Participants are coached about offering information in an emotionally neutral, factual manner while maintaining a supportive, nonaccusatory tone, thus presenting incontrovertible evidence to the loved one that a problem exists.

When using this approach with older adults, Panel members recommend some modifications. No more than one or two relatives or close associates should be involved along with the counselor; having too many people present may be emotionally overwhelming or confusing for the older person. The most influential person to include in interventions or any other pretreatment activity may be a spouse, cohabitant, caregiving son or daughter, clergy member, or visiting nurse or caseworker, depending on the particular social network of the client. Inclusion of grandchildren is discouraged: Panel members report that many older alcoholics describe long-lasting resentment and shame about the airing of their problems in the presence of much younger relatives.

Because denial is as much a part of psychoactive prescription drug dependence as it is of alcoholism and addiction to illicit drugs, an intervention may help move psychoactive drug abusers toward detoxification or other formal treatment, although extra caution is advisable. Both the diagnosis of abuse or dependence and the need for treatment are particularly difficult for older patients to accept because their initial use of psychoactive prescription drugs was, in almost all cases, originally sanctioned by a health care provider and prescribed as a remedy for a legitimate medical problem or complaint. As a group, older adults tend to have even

greater disdain for "drug addicts" than the general population: Any implied linkage with the criminalized population of illicit drug users is unnecessarily stigmatizing and appropriately resented. Such labels as *addict*, *alcoholic*, and *drunkard* should be avoided.

Motivational counseling

As a result of the work pioneered by Prochaska and DiClemente, clinicians now understand that people may respond quite differently to recommendations to alter or give up longstanding or previously pleasurable behaviors. Reactions depend, to a great extent, on an individual's readiness to change (Prochaska et al., 1992). For example, the screening or assessment findings may confirm one individual's suspicions about the negative effect of alcohol on personal health and may prompt an immediate commitment to abstain or begin tapering off. For others, the assessment may be a revelation that must be processed over time before they can effect any changes. Still others may be unconvinced by the findings and the need to make any changes at all.

Research on stages of change, initially applied to smoking cessation studies, has demonstrated that smokers enrolled in treatment trials fall into one of five stages: precontemplation, contemplation, ready for action, action, and maintenance (Prochaska and DiClemente, 1986). Categorizing smokers this way helps predict who is most likely to succeed in quitting smoking and what kinds of interventions work best with smokers in different stages (DiClemente et al., 1991; Prochaska and DiClemente, 1985; Velicer et al., 1992). More recently, it has been suggested that research on brief interventions for problem drinkers could examine stages of change as a means of tailoring interventions to an individual's readiness (Hodgson and Rollnick, 1992). Studies have already begun to examine readiness for change as predictor of outcome in the alcohol field (DiClemente and Hughes, 1990; Prochaska et al., 1992).

Motivational counseling acknowledges differences in readiness and offers an approach for "meeting people where they are" that has proven effective with older adults (Miller and Rollnick, 1991). In this approach, an understanding and supportive counselor listens respectfully and accepts the older adult's perspective on the situation as a starting point, helps the individual identify the negative consequences of drinking and prescription drug abuse, helps him or her shift perceptions about the impact of drinking or drug-taking habits, empowers the individual to generate insights about and solutions for his or her problem, and expresses belief in and support for the older adult's capacity for change. Motivational counseling is an intensive process that enlists patients in their own recovery by avoiding labels, avoiding confrontation (which usually results in greater defensiveness), accepting ambivalence about the need to change as normal, inviting clients to consider alternative ways of solving problems, and placing the responsibility for change on the client. This process also can help offset the denial, resentment, and shame invoked during an intervention and can serve as a prelude to cognitive–behavioral therapy (Miller and Rollnick, 1991).

Specialized Treatment of Older Problem Drinkers And Substance Abusers

For some older adults, especially those who are late onset drinkers or prescription drug abusers with strong social supports and no mental health comorbidities, pretreatment approaches may prove quite effective, and followup brief interventions and empathic support for positive change may be sufficient for continued recovery.

There is, however, a subpopulation of older adults who will need more intensive treatment.

Despite the resistance that some older problem drinkers or drug abusers exert, treatment is worth pursuing. Studies show that older adults are more compliant with treatment and have treatment outcomes as good as or better than those of younger patients (Oslin et al., 1997; Atkinson, 1995).

Patient Placement and Patient Matching

Triage refers to the process of organizing and prioritizing treatment service. Typically, decisions regarding triage are made up of two components: patient placement and patient matching.

Patient placement describes a process by which a recommendation is made for placement in a specific level (intensity) of care, which ranges from medically managed (high intensity) inpatient services to outpatient services (low intensity). The most commonly used patient placement criteria are found in the American Society of Addiction Medicine (ASAM) *Patient Placement Criteria for the Treatment of Substance-Related Disorders*, Second Edition (ASAM-PPC-2) (American Society of Addiction Medicine, 1996).

Figure 5-1 shows the six problems or assessment dimensions that ASAM-PPC-2 uses to make patient placement decisions both among and within levels of service.

The answers to these questions should help the health care provider assess the severity of the problem and the intensity of the services required. For older adults, the triage process is often greatly influenced by factors other than the severity of a drinking or prescription drug problem. For example, physical accessibility of facilities will influence treatment choices for wheelchair-bound patients; hearing-impaired patients will need programs with individual therapy and/or modified small group therapy.

Language barriers, illiteracy, and different cultural views of and customs surrounding substance abuse add to the complex of factors required to assess functional abilities in older adult patients. To help ensure optimal benefits for older adults, the Consensus Panel recommends that treatment plans weave age-related factors into the contextual framework of the ASAM criteria.

Levels of Treatment Services

The following section provides an overview of treatment services from the most to the least intensive, with examples demonstrating how various circumstances may affect the level of care at which a service is offered.

Inpatient/Outpatient Detoxification Treatment

One of the first issues to consider for an older patient with a substance dependence diagnosis is whether detoxification management is necessary and, if so, whether it should be undertaken in an inpatient hospital-based setting or managed on an outpatient basis. No studies or reports specifically assess the potential risks or benefits of outpatient detoxification among older adults, but detoxification is generally seen as medically riskier for an older person. Until more research is available, best clinical judgment must guide such decisions. For more information on detoxification, see TIP 19, *Detoxification From Alcohol and Other Drugs* (CSAT, 1995a). Medical safety and potential access to the abused drugs are primary considerations when deciding whether an older patient's withdrawal from prescription drugs requires supervision in a hospital. Factors indicating the need for inpatient detoxification include

Figure 5-1
ASAM-PPC-2 Assessment Dimensions

Dimension 1—Acute Intoxication and/or Withdrawal Potential

What risk is associated with the patient's current level of acute intoxication? Is there significant risk of severe withdrawal symptoms or seizures, based on the patient's previous withdrawal history, amount, frequency, and recency of discontinuation or significant reduction of alcohol or other drug use? Are there current signs of withdrawal? Does the patient have supports to assist in ambulatory detoxification, if medically safe?

Dimension 2—Biomedical Conditions and Complications

Are there current physical illnesses, other than withdrawal, that need to be addressed or that may complicate treatment? Are there chronic conditions that affect treatment?

Dimension 3—Emotional/Behavioral Conditions and Complications

Are there current psychiatric illnesses or psychological, behavioral, or emotional problems that need to be addressed or which complicate treatment? Are there chronic conditions that affect treatment? Do any emotional/behavioral problems appear to be an expected part of addiction illness, or do they appear to be autonomous? Even if connected to the addiction, are they severe enough to warrant specific mental health treatment?

Dimension 4—Treatment Acceptance/Resistance

Is the patient actively objecting to treatment? Does the patient feel coerced into treatment? How ready is the patient to change? If willing to accept treatment, how strongly does the patient disagree with others' perceptions that he or she has an addiction problem? Does the patient appear to be compliant only to avoid a negative consequence, or does he or she appear to be internally distressed in a self-motivated way about his or her alcohol/other drug use problems?

Dimension 5—Relapse/Continued Use Potential

Is the patient in immediate danger of continued severe distress and drinking/drug-taking behavior? Does the patient have any recognition of, understanding of, or skills with which to cope with his or her addiction problems in order to prevent relapse or continued use? What severity of problems and further distress will potentially continue or reappear if the patient is not successfully engaged in treatment at this time? How aware is the patient of relapse triggers, ways to cope with cravings to use, and skills to control impulses to use?

Dimension 6—Recovery Environment

Are there any dangerous family members, significant others, living situations, or school/working situations that pose a threat to treatment engagement and success? Does the patient have supportive friendships, financial resources, or education/vocational resources that can increase the likelihood of successful treatment? Are there legal, vocational, social service agency, or criminal justice mandates that may enhance the patient's motivation for engagement in treatment?

Source: American Society of Addiction Medicine, 1996.

- A high potential for developing dangerous abstinence symptoms such as a seizure or delirium because (1) the dosage of alcohol or drug has been particularly high or prolonged and has been discontinued abruptly or (2) the patient has experienced these serious symptoms at any time previously
- Suicidal ideation or threats
- The presence of other major psychopathology

- Unstable or uncontrolled comorbid medical conditions requiring 24-hour care or parenterally administered medications (e.g., renal disease, diabetes)
- Mixed addictions, (e.g., alcohol, sedative/hypnotic drugs)
- A lack of social supports at home or living alone with continued access to the abused substance(s)
- A failure to respond to outpatient treatment.

Older patients detoxifying from psychoactive prescription drugs on an inpatient basis should not be stabilized on high doses of benzodiazepines or barbiturates with a long or intermediate half-life. These drugs can accumulate and result in toxicity and some persisting cognitive impairment after hospital discharge, which can interfere with functional capabilities in general and also hamper any immediate participation in continuing treatment. The choice of drug and drug schedule should also be guided by the length of the hospitalization. If a long-acting drug such as clonazepam (Klonopin) or an intermediate-acting one such as chlordiazepoxide is used to detoxify an older patient, the hospitalization will likely be extended. An additional risk is that the patient will exhibit no signs of the abstinence syndrome until days or even weeks after leaving the hospital. In general, the initial dose of a drug for suppression and management of withdrawal symptoms should be one-third to one-half the usual adult dose, sustained for 24 to 48 hours to observe reactions and then gradually tapered with close attention to clinical responses (Finlayson, 1995b).

The clinician overseeing detoxification from alcohol or prescription drugs must decide on the level of care necessary to maintain abstinence. Patients with high relapse or withdrawal potential and patients with severe medical or psychiatric comorbidity will require hospitalization. Regular monitoring of the patient's vital signs and objective symptoms of withdrawal also is needed. Short-acting benzodiazepines (e.g., oxazepam, lorazepam) are customarily used as detoxification agents because alcohol-addicted patients are cross-tolerant to these substances. The use of oxazepam or lorazepam is warranted in patients with severe liver disease. Metabolism of these benzodiazepines does not depend on hydroxylation by the liver, and thus they do not accumulate in the liver and cause adverse effects (Brower et al., 1994). The benzodiazepine dosage is decreased daily over the course of the detoxification process. Medications such as clonidine and methadone for opiate withdrawal and phenobarbitol for barbiturate withdrawal should be used more cautiously than with younger patients.

In general, older patients require lower doses of many medications, and the principle of starting at a lower dose and titrating at a slower rate should be followed for detoxification. In addition to treating acute withdrawal symptoms, clinicians are reminded that alcoholic patients require supplemental doses of thiamine, folate, and multivitamins to counteract the vitamin depletion that is often associated with excessive alcohol use.

Inpatient Rehabilitation

Patients who are brittle, frail, acutely suicidal, or medically unstable or who need constant one-on-one monitoring, should receive 24-hour primary medical/psychiatric/nursing inpatient care in medically managed and monitored intensive treatment settings. Recent changes in the health care system have dramatically reduced the availability of this level of care. Inpatient rehabilitation (traditional 14-, 21-, or 28-day programs) are not readily available and often no longer reimbursed by health care insurers. Because of these reimbursement gaps, inpatient care may have to be arranged on a medical or psychiatric unit of an acute care hospital.

Residential Rehabilitation

Residential programs provide a slower paced, more repetitive treatment approach for older patients. Services range from high to low intensity and can be delivered in specialized care settings (e.g., halfway house, group home for people with addiction problems, board and care facilities, domiciliary facilities for veterans) and in nonspecialized settings (e.g., extended care facilities, life care programs, subacute nursing homes where primary care doctors make rounds and visiting nurses attend occasionally). Specialized rehabilitation programs include those designed for individuals who are cognitively impaired by chronic illness or traumatic injuries. These facilities work well for patients who lack significant social resources (such as family) or have no social network and for those with no mobility to stabilize care (which justifies the expense of this treatment option).

Outpatient Services

Specialized outpatient programs vary greatly in the intensity of treatment. Partial hospitalization/day treatment programs require patients to attend day-long treatment 5 days per week, whereas intensive outpatient programs are sometimes hospital-based and provide 2 to 3 hours of treatment each day. Finally, traditional low-intensity outpatient care normally provides for one group session per week and one individual session per month.

Nonspecialized, nonresidential services are provided by many partial day treatment programs structured for outpatient care. These include community-based drop-in centers and senior centers, generally less available in rural areas. These facilities are good for people waiting for inpatient care and who require a level of interim care, for people with no family at home on a daily basis, and for retirees who need a structured daily regimen to keep the focus on their addiction. Some of these structured programs have the expertise to deal with comorbidities in an intensive outpatient setting.

If an older patient needs more help and structure than is readily available, an individually tailored, case-managed approach may work well for coordinating outpatient treatment. This would entail professional assessment of the patient's problems and strengths, assistance with the development of a realistic treatment plan in the context of known and reasonably available resources in the community, and linkage with the identified programs. Usually the patient's primary physician and his or her team will be the chief players in ongoing case management. Providers of primary drug dependence treatment should not overlook the physician—who will prescribe all medications—in their planning. The Panel recommends drawing the physician into the treatment planning process and enrolling him as a player in the recovery network. Without the physician's knowledgeable participation, the entire plan may unravel.

The Panel also recommends serving older adults who are dependent on psychoactive prescription drugs in flexible, community-oriented programs with case management services rather than in traditional, stand-alone substance abuse treatment facilities with standardized components. Case management is discussed in more detail below.

Specialized outpatient treatment generally includes psychiatric consultation and individualized or group psychotherapy. Outpatient programs frequently encourage patients to attend regular meetings of self-help groups such as Alcoholics Anonymous, Alcoholics Victorious, Rational Recovery, or Narcotics Anonymous and often assign a proactive case manager to help an older patient connect with an appropriate group. After a patient's release from the formal and time-limited outpatient substance abuse treatment

program, a case manager plays an important aftercare role by coordinating community-based support and monitoring to reinforce gains made during treatment and prevent or minimize the impact of slips.

Although the success of treatment for older adults has been documented, the literature on substance abuse lacks empirically derived, proven methods for treating older alcoholics and substance abusers. Instead, individual practices borrow heavily from what is known in the general fields of addictions treatment, geriatric medicine and psychiatry, and social gerontology, as well as the cumulative experience of existing programs that have specialized in treating older alcoholics (Atkinson, 1995; Schonfeld and Dupree, 1996). Before referring an older adult to a community-based treatment program, health care providers should carefully consider the program's philosophy and practices regarding older clients.

Program Philosophy and Basic Principles

Based on a review of the older adult-specific alcohol treatment literature, the Panel recommends incorporating the following six features into treatment of the older alcohol abuser (Schonfeld and Dupree, 1996):

1. Age-specific group treatment that is supportive and nonconfrontational and aims to build or rebuild the patient's self-esteem
2. A focus on coping with depression, loneliness, and loss (e.g., death of a spouse, retirement)
3. A focus on rebuilding the client's social support network
4. A pace and content of treatment appropriate for the older person
5. Staff members who are interested and experienced in working with older adults
6. Linkages with medical services, services for the aging, and institutional settings for referral into and out of treatment, as well as case management.

Building from these six features, the Consensus Panel recommends that treatment programs adhere to the following principles:

- Treat older adults in age-specific settings where feasible
- Create a culture of respect for older clients
- Take a broad, holistic approach to treatment that emphasizes age-specific psychological, social, and health problems
- Keep the treatment program flexible
- Adapt treatment as needed in response to clients' gender.

Age-Specific Treatment

Age-specific treatment is group treatment in which older individuals come together exclusively with their peers. Such treatment can be provided in one of two formats. The first is a discrete program designed for older alcoholics and substance abusers in which the entire program provides age-specific services and all of the patients are older. The second option is age-specific groups within an all-ages treatment program.

In contrast, *mixed-age treatment* and *mainstreaming* integrate adults of all ages with similar substance abuse problems in the same program. The question of whether older adults achieve better outcomes in age-specific treatment has not received adequate study, but there is some evidence that age-specific treatment improves older adults' compliance and outcomes (Kashner et al., 1992; Kofoed et al., 1987; Thomas-Knight, 1978).

Treatment works best when the issues dealt with are congruent with the life stage of the client. Younger and older adults' problem drinking can usually be traced to different types of problems, even when the emotional responses

to the problems seem similar. For example, the drinking of younger and older clients may both be attributed to depression, but the causes of that depression may be as different as being unable to find one's first job and facing the prospect of retirement. Older adults will recognize the problems of younger adults but may no longer find them particularly relevant. Younger adults, with no knowledge of what it's like to grow old, may lack empathy and become impatient with older adults. The design of educational groups, the skills clients need to acquire, and the linkages that need to be made through case management are all different for older adults than for younger adults. For all of these reasons, treating the older client in an age-specific setting is preferable.

Of course, this is not always possible, particularly for prescription drug abusers. Because very few older adults with prescription drug problems seek treatment or are referred for care, most drug treatment facilities do not have specialty "older adult track" programming. If specialized treatment is not available, older adults can at least be grouped with younger people whose lifestyles and problems are most compatible and with whom they feel most comfortable. It is difficult to treat older adults who have only abused prescription drugs together with consumers of illicit substances, or even alcoholics who have "hit bottom."

Some clinicians argue that commonality in the drug of choice is the most important factor in grouping patients. Because lifestyles vary dramatically among different drug cultures, it may be more important to group older patients with other patients who also have a primary problem with legal drugs rather than by age cohort, gender, or socioeconomic status (Finlayson, 1995b).

If circumstances preclude treatment in an age-specific setting, a program can still address the age-specific themes of older clients by hiring at least one person specializing in work with older adults. In mixed-age settings, case management can provide an effective means of addressing age-specific themes.

A Culture of Respect

Treatment programs should cultivate a culture of respect for older clients. Nurturing clients' self-esteem and reawakening their sense of themselves as valuable, competent human beings are central to the process. Older adults frequently enter treatment depleted physically, socially, and emotionally, convinced that their situation is hopeless. Adding the stigma of addiction to the stigma of aging can compound their despair. They may have been disowned by their families and rejected by friends because of their drinking or drug abuse. If they seek help outside the family, their experiences with agencies are often impersonal, dehumanizing, and humiliating.

To increase clients' self-esteem, staff members should express confidence in each client's ability to participate, persevere, and succeed in treatment. Staff members need to state this confidence frequently and at each phase in the treatment process in a way that is upbeat but not patronizing. They should avoid acting overly helpful and implying that the individual is impaired and helpless, at the same time recognizing he or she does need help with the substance abuse problem. Managing his or her own life helps an older client regain self-esteem. Treatment providers should take care to treat all their clients with an unconditional positive regard, whether they are wealthy or on welfare.

Many actions and speaking manners demonstrate respect in ways the older client will understand:

- Abide by the manners that the older client sees as customary (e.g., do not swear).
- Ask the individual how he or she would like to be addressed and introduced to others.

Use surnames and formal terms of address until given permission to be more familiar.

- Avoid condescending or patronizing behavior.
- Speak directly to the client, not the client's spouse or adult child, when the client is present.
- Recognize the client's privacy and personal space. If making home visits or entering the client's personal space at the treatment facility, acknowledge the client's ownership of the space. Knock and gain permission to enter, ask where the person would like you to sit, and respond graciously to any offer of hospitality, whether accepting the offer or not. Make adequate provision for personal privacy and the security of the person's possessions, in both inpatient and outpatient settings.
- Talk to the client. Interacting spontaneously communicates appreciation for the person as an individual. Honoring the client's pain, needs, and joys validates the person in his or her attempt to process life's experiences in sobriety.
- Fulfill the client's request to speak to his or her clinician, immediately if possible.
- In a treatment program, a number of shorter, informal sessions, particularly in response to a patient's request, may be more valuable than a longer, scheduled session. Honoring a patient's requests sends the message, "You are important."
- Respect the client's spiritual concerns and desire to discuss meaning and purpose in life. Spiritual issues may be addressed by professional counselors or pastoral counselors in addition to ministers or other mental health professionals trained in existential interventions. Often, older adults have a need to discuss these issues, and alcohol misuse may be a symptom of a deeply felt lack of purpose in life.

Holistic Treatment Based on Age-Specific Problems

Treatment programs are generally advised to take a broad, holistic approach. In treating the older substance abuser in particular, it is necessary to focus on more than just the drinking or substance abuse problem. As people age, the likelihood of multiple antecedent conditions for problem behavior increases. In other words, the individual's psychological and health problems tend to become more complex, multiply determined, and interactive. Recent research suggests that older adults with alcohol problems often drink in response to loneliness, depression, and poor social support networks (Schonfeld and Dupree, 1995). Researchers have also noted chronic pain as a high-risk condition for substance abuse.

A number of interrelated emotional, social, medical, spiritual, and practical problems or changes characterize the older adult's experiences (see Figure 5-2). Some of these can precipitate abuse of alcohol or other drugs. Those that initiate, sustain, or interact with the substance abuse problem provide the focus of a holistic treatment approach tailored to the needs of the individual.

Discussing life changes with patients can help them develop insight into the causes of their substance abuse problems. For example, while discussing salient nondrinking problems with an older adult, the drinking problem often emerges naturally as a topic of discussion. Although the problems associated with aging can be overwhelming, patients need not accept them passively. They can develop a self-care skill or positive attitude and can obtain appropriate help, such as the pharmacological alleviation of pain, management of grief, or skills for improving relationships.

Figure 5-2

Life Changes Associated With Substance Abuse in Older Adults

Emotional and Social Problems

- Bereavement and sadness
- Loss of
  - Friends
  - Family members
  - Social status
  - Occupation and sense of professional identity
  - Hopes for the future
  - Ability to function
- Consequent sense of being a "nonperson"
- Social isolation and loneliness
- Reduced self-regard or self-esteem
- Family conflict and estrangement
- Problems in managing leisure time/boredom
- Loss of physical attractiveness (especially important for women)

Medical Problems

- Physical distress
- Chronic pain
- Physical disabilities and handicapping conditions
- Insomnia
- Sensory deficits
  - Hearing
  - Sight
- Reduced mobility
- Cognitive impairment and change

Practical Problems

- Impaired self-care
- Reduced coping skills
- Decreased economic security or new poverty status due to
  - Loss of income
  - Increased health care costs
- Dislocation
  - Move to new housing, or family moves away
  - Homelessness
  - Inadequate housing

Program Flexibility

The goals, setting, and duration of treatment may well be different for each client. The first step toward ending problem drinking may involve finding safe, affordable housing for one client, resolving depression for a second, or improving relationships with a caregiving daughter for a third. Elements of treatment, such as work assignments or exercise programs, will need to be tailored for the individual patient.

It may be necessary to stop treatment when illnesses or hospitalization intervene. Schedule adjustments may be needed in recognition of the fatigue levels of older clients. The setting of treatment may need to shift from clinic to home during a period of convalescence from a hip fracture or an illness. One client may need twice as many treatment sessions to master steps toward self-sufficiency as another client. One individual may need to continue treatment for 2 years to meet the goals another client reaches within 6 months.

Gender Issues

Some women patients may be better served by all-female treatment groups and facilities,

although studies comparing the effectiveness of single-sex and mixed-gender programs are lacking. Panel members have observed that many older women defer to men and may take subservient roles in a treatment group. These women could be less likely to become leaders in the group or to build their self-esteem, although a talented group therapist can turn the roles of men and women in the group into therapeutic assets.

Both women and men may have personal issues related to their drinking that they would be reluctant to discuss with, or in the presence of, members of the opposite sex. This reluctance is likely to be greater for older adults, because many have a heightened need for privacy that discourages open discussions of personal issues and socialization with members of the opposite sex. In response, programs involving group treatment might afford opportunities for separate meetings of males and females on an as-needed basis without disrupting the larger program. Such meetings may never be necessary, or take place intermittently, depending on the group members' needs or preferences to discuss certain topics in same-sex settings.

Although most problem drinkers are men, more women misuse prescription drugs, and there are more women than men overall in the aging population. Women use more psychoactive drugs than men do (Falvo et al., 1990; Ostrom et al., 1985; Venner et al., 1980; Gomberg, 1995), and some researchers consider prescription drug abuse a major substance abuse issue among older women. Some studies report that older men are prescribed antidepressants as often as or more often than women, but it is not known whether this is a function of greater use of medical services by aging men or a difference in the diagnosis of depression among older adults (Gomberg, 1992a, 1995).

Treatment Approaches

The Consensus Panel recommends the following general approaches for effective treatment of older adult substance abusers:

- Cognitive–behavioral approaches
- Group-based approaches
- Individual counseling
- Medical/psychiatric approaches
- Marital and family involvement/family therapy
- Case management/community-linked services and outreach.

Not every approach will be necessary for every client. Instead, the program leaders can individualize treatment by choosing from this menu to meet the needs of the particular client. Planning information comes from interviews; mental status examinations; physical examinations; laboratory, radiological, and psychometric tests; and social network assessments, among others.

Figure 5-3 lists the major treatment objectives that the Panel recommends for older substance abusers and the approaches that can best accomplish them.

Figure 5-3
Treatment Objectives and Approaches

General Objectives/ Examples	General Approaches/Examples
Eliminate or reduce substance abuse	Cognitive–behavioral (group or individual) ■ Alcohol (drug) effects ■ Relapse prevention ■ Stress management Group approaches ■ Alcohol (drug) effects education Medical ■ Naltrexone, acamprosate (alcohol)
Safely manage intoxication episodes during treatment	Medical ■ Remove patient from activities and observe ■ Link and refer to detoxification program
Enhance relationships	Cognitive–behavioral (group or individual) ■ Social skills and network building Group approaches ■ Social support ■ Socialization skill education ■ Gender-specific issues Marital and family approaches ■ Spouse counseling ■ Marital therapy ■ Family therapy Case management ■ Linkage to community social programs ■ Home visitation Individual counseling ■ Focus on psychodynamic issues in relationships
Promote health ■ Improve sleep habits ■ Improve nutrition ■ Increase exercise ■ Reduce tobacco use ■ Reduce stress	Medical ■ Provide primary medical care Cognitive–behavioral (group or individual) ■ Self-management skills training Group approaches ■ Health education ■ Education on nutrition, diet, cooking, shopping ■ Sleep hygiene
Stabilize and resolve comorbidities ■ Medical ■ Psychiatric (e.g., depression, anxiety) ■ Sensory deficits	Medical ■ Consultation and special assessments, including medication assessment ■ Primary and specialized medical care ■ Psychiatric care for chronic mental disorders (by geriatric psychiatrist, if possible) ■ Pain management for chronic pain disorders ■ Antidepressants, antianxiety medication Cognitive–behavioral (group or individual) ■ Relaxation training ■ Depression

Cognitive–Behavioral Approaches

There are three broad categories of cognitive–behavioral approaches: behavior modification/therapy, self-management techniques, and cognitive–behavioral therapies. Behavior modification applies learning and conditioning principles to modifying overt behaviors—those behaviors obvious to everyone around the client (Powers and Osborne, 1976; Spiegler and Guevremont, 1993). Self-management refers to teaching the client to modify his or her overt behaviors as well as internal or covert patterns. Cognitive–behavior modification involves altering covert patterns or behaviors that only the client can observe.

Cognitive–behavioral techniques teach clients to identify and modify self-defeating thoughts and beliefs (Dobson, 1988; Scott et al., 1989). The cognitive–behavioral model offers an especially powerful method for targeting problems or treatment objectives that affect drinking behavior. Together, provider and client analyze the behavior itself, constructing a "drinking behavior chain." The chain is composed of the antecedent situations, thoughts, feelings, drinking cues, and urges that precede and initiate alcohol or drug use; the drinking or substance-abusing behavior (e.g., pattern, style); and the positive and negative consequences of use for a given individual. When exploring the latter, it is particularly important to note the *positive* consequences of use: those that maintain abusive behavior.

Researchers have developed an instrument that can elicit by interview the individual's drinking or drug use behavior chain (Dupree and Schonfeld, 1986). Immediate antecedents to drinking include feelings such as anger, frustration, tension, anxiety, loneliness, boredom, sadness, and depression. Circumstances and high-risk situations triggering these feelings might include marital or family conflict, physical distress, or unsafe housing arrangements, among others. Many older adults drink excessively in response to perceived losses and changes associated with aging and their affective and behavioral response to those losses. Alcohol use is often a form of "self-medication," a means to soften the impact of unwanted change and feelings. For the patient, new knowledge of his or her drinking chain often clarifies for the first time the relationship between thoughts and feelings and drinking behavior, a discovery one Panel member calls "taking the mystery out of drunkenness." This method provides insight into individual problems, demonstrates the links between psychosocial and health problems and drinking, and provides the data for a rational treatment plan and an explicit individualized prevention strategy.

Breaking drinking behavior into the links of a drinking chain serves treatment in other ways, too. It suggests elements of the community service network that may be helpful in establishing an integrated case management plan to resolve antecedent conditions (e.g., housing, financial, medical problems) that necessitate involvement from the community beyond the treatment program (see Case Management section).

Behavioral treatment can be used with older adults individually or in groups, with the group process particularly suited to older adults (see Group-Based Approaches section below). Equipped with the knowledge of the individual's drinking or drug abuse behavior chain, the group leader begins to teach the client the skills necessary to cope with high-risk thoughts or feelings. The leader teaches the older person to initiate alternative behaviors to drinking, then reinforces such attempts. The leader may demonstrate through role-playing alternative ways to manage high-risk situations, permitting the client to select coping behaviors

that he or she feels willing and able to acquire. The leader may also ask for feedback from the group and use that feedback to work gradually toward a workable behavioral response specific to the individual.

The behaviors are rehearsed within the treatment program until a level of skill is acquired. The patient is then asked to try out the behaviors in the real world as "homework." For example, a client who has been practicing ways to overcome loneliness or social isolation may receive a community-based assignment in which to carry out the suggested behaviors. The individual reports back to the group, then the therapist and group members provide feedback and reinforce the individual's attempt at self-management (whether the outcome was a success or not). This process continues until the individual develops coping skills and brings the antecedents for abuse under self-control or self-management. Typically, as patients learn to manage the conditions (thoughts, feelings, situations, cues, urges) that prompt alcohol abuse, abstinence can be maintained.

Defining drinking behavior antecedents is also useful for determining when a client is ready for discharge. When the individual has acquired and can successfully use coping behaviors specific to his or her antecedents for drinking, the treatment team might begin to assist the person in gradually phasing out of the program. Discharge that takes place before the client has acquired specific coping behaviors is almost certain to result in relapse—probably very soon after discharge.

One older adult-specific treatment program that has used these cognitive–behavioral and self-management approaches is the Gerontology Alcohol Project (GAP) (Dupree et al., 1984). The program assessed antecedents on a typical day of drinking for each person entering treatment. Group treatment involved skill acquisition in order to cope with problems such as anger and frustration, depression and grief, tension and anxiety, lack of social support, passivity, and an unstructured life. GAP staff were encouraged to teach skills at a slower pace than might be used with younger adults and to limit the amount of information taught per session by following written curriculum manuals. These teaching guides provided age-specific examples and maintained consistency in teaching.

Confrontation was not permitted. This facilitated more open discussion between staff and clients, encouraging clients to report instances when they slipped. This information was used in the group to help both the person who slipped and other clients. Each slip was diagrammed in terms of that person's drinking behavior chain, with the antecedent conditions and consequences, in order to teach group members how to avoid or manage their own high-risk situations. The group engaged in exercises or rehearsals of the necessary actions and cognitions to prevent one drink (a slip) from becoming a full relapse. A 1-year followup of clients completing GAP indicated a high rate of success. Seventy-five percent of clients maintained their drinking reduction goals and increased the size of their social support networks (Dupree et al., 1984).

Later studies comparing early and late-onset older problem drinkers showed great similarity between these two groups' antecedents to drinking and treatment outcomes (Schonfeld and Dupree, 1991). Another study described a behavioral regimen that included psychoeducation, self-management skills training, and marital therapy. A followup study of 16 male inpatients, ages 65 to 70, undertaken 2 to 4 years after discharge, indicated that half were abstaining, two had reduced their drinking, and the remaining patients' drinking was destructive (Carstensen et al., 1985). These studies recommend (and the Panel concurs) that treatment focus on teaching skills necessary for

rebuilding the social support network; self-management approaches for overcoming depression, grief, or loneliness; and general problem solving (Schonfeld and Dupree, 1990, 1991).

Group-Based Approaches

Group experiences are particularly beneficial to older adults in treatment. They provide the arena for giving and sharing information; practicing skills, both new and long-unused; and testing the clients' perceptions against reality. Perhaps the most beneficial aspect of groups for older adults is the opportunity to learn self-acceptance through accepting others and in return being accepted. Guilt and forgiveness are often best dealt with in groups, where people realize that others have gone through the same struggles. Special groups may also deal with the particular problems of aging; the group format can help patients learn skills for coping with any of the life changes identified in Figure 5-2.

Self-paced learning is best for older adults. To allow clients to set their own pace in a group setting, the leader can give individualized or take-home assignments. Clients who have not reached the needed level of expertise on a topic can receive an individualized "booster session" while remaining in the group. Older clients also should get more than one opportunity to integrate and act on new information. For example, information on bereavement can be presented in an educational session, then reinforced in therapy. To help participants integrate and understand material, it may even be helpful to expose them to all units of information twice.

Groups help create a sense of camaraderie and high morale. Research on group work with older adults suggests that older adults bond into groups at a faster pace than younger adults do (Finkel, 1990). One successful treatment program made use of this phenomenon by assigning each person to another client who served as a "buddy," explaining and facilitating the day's events.

Some of the most effective types of groups are socialization, therapy, educational, and self-help or support groups.

Socialization groups

Groups may focus on socialization skills: teaching clients skills for meeting new people, interacting better with peers, and giving them opportunities to practice. These skills are honed whenever clients gather together, whether in recreation, on coffee breaks, or at lunch. This type of activity is particularly valuable for those who live with loneliness or who have become socially isolated.

Panel members report that many older adults keep in touch with friends they made during treatment, especially if the treatment program sponsored social activities. Some treatment programs sponsor an evening a week where clients can socialize, which helps them rebuild or expand their social contacts in the community.

Therapy groups

Some therapy groups engage in behavioral interaction, as discussed above, others in more psychodynamic therapy. Both types of groups allow clients to test the accuracy of their interpretations of social interactions, measure the appropriateness of their responses to others, and learn and practice more appropriate responses. Groups provide each client with feedback, suggestions for alternative responses, and support as the individual tries out and practices different actions and responses.

Some people may need help in entering the group, particularly if they are accustomed to isolation. This help could include individual counseling sessions in which the counselor explains how a group works and answers the

client's questions regarding confidentiality. The client's entry into the group may be eased by joining in stages, at first observing, then over time moving into the circle. The counselor may formally introduce the new person to the members of the group so that upon entering the group, he or she is at least somewhat familiar with them.

Older adults grew up before psychological terms had been integrated into the everyday language. Therefore, therapy groups for older adults should avoid the use of jargon, acronyms, and "psychspeak." If leaders do use such terms, they should begin by teaching the group their meanings. If a participant uses an unfamiliar term, the leader should explain it. It may be helpful to develop a vocabulary list on a chart and for any individual notebooks. Similarly, because many older individuals were raised not to "air their dirty laundry," they should never be pressured to reveal personal information in a group setting before they are ready. Nor should older patients be pressured into "role-playing" before they are ready.

Educational groups

Educational groups are an integral part of addiction treatment. Patients need information about addiction, the substances, their use, and their impact. Older adults also benefit from shared information about the developmental tasks of the later stages of life, support systems, medical aspects of aging and addiction, the concepts and processes of cognitive–behavioral techniques, and experiences they are likely to be facing, such as retirement, loss, partner's illness, and family concerns. Educational units can be designed to teach practical skills for coping with any aspect of daily life, such as nutrition, household management, or exercise.

Some basic principles for designing educational groups follow:

- Older adults can receive, integrate, and recall information better if they are given a clear statement of the goal and purpose of the session and an outline of the content to be covered. The leader can post this outline and refer to it as she moves through the session. The outline may also be distributed for use in personal note-taking and as an aid in review and recall. Courses and individual sessions should be conceived as building blocks that are added to the base of the older adult's life experience and needs. Each session should begin with a review of previously presented materials.
- Members of the group may range in educational level from being functionally illiterate to possessing advanced degrees. Many older adults are adept at hiding a lack of literacy skills. These individuals need to be helped in a way that maintains their self-respect. Group leaders should choose vocabulary carefully to comply with clients' communication skills.
- Groups should accommodate clients' sensory decline and deficits by maximizing the use of as many of the clients' senses as possible. Simultaneous visual and audible presentation of material, enlarged print, voice enhancers, and blackboards or flip charts can be helpful. An overhead projector allows the leader to display written material on a screen while facing and speaking to the group. Group members may also take home supplemental audiotapes and videotapes for review.

It is important to recognize clients' physical limitations. Group sessions should last no longer than about 55 minutes. The area should be well lighted without glare, and interruptions, noise, and superfluous material should be kept to a minimum. Distractions generally interfere

more with learning for older patients than for younger ones (Myers and Schwiebert, 1996).

Alcoholics Anonymous and other self-help groups

Many treatment programs refer patients to Alcoholics Anonymous (AA) and other self-help groups as part of aftercare. Providers should warn older patients that these groups might seem confrontational and alienating. The referring program should tell patients exactly what to expect—that the group discussions may well include profanity and younger members' accounts of their antisocial behavior. To orient clients to these groups, the treatment program may ask that local AA groups provide an institutional meeting as a regular part of the treatment program. Other options are to help clients develop their own self-help groups or even to facilitate the development of independent AA groups for older adults in the area.

Individual Counseling or Short-Term Psychotherapy

Individual counseling is especially helpful to the older substance abuser in treatment's beginning stages, but the counselor often must overcome clients' worries about privacy. Subjects that many older adults are loath to discuss include their relationships to their spouses, family matters and interactions, sexual function, and economic worries. It is essential to assure the client that the sessions are confidential and to conduct the sessions in a comfortable, self-contained room where the client can be certain the conversation will not be overheard.

Older clients often respond best to counselors who behave in a nonthreatening, supportive manner and whose demeanor indicates that they will honor the confidentiality of the sessions. Clients frequently describe the successful relationship in familial terms: "It is like talking to my son," or, "It is as though she were my sister." Older clients value spontaneity in relationships with the counselor and other staff members; a counselor's appropriate self-disclosure often enhances or facilitates a beneficial relationship with the patient.

Because receiving counseling may be a new experience for the client, the provider should explain the basics of counseling and clearly present the responsibilities of the counselor and the client. Summarizing at the beginning of each session helps to keep the session moving in the appropriate direction. Summarizing at the end of a session and providing tasks to be thought about or completed before the next session help reinforce any knowledge or insights gained and contribute to the older client's feeling that she is making progress.

In individual sessions, counselors can help clients prepare to participate in a therapy group, building their understanding of how the group works and what they are expected to do. Private sessions can also be used to clarify issues when the individual is confused or is too embarrassed to raise a question in the group. As the client becomes more comfortable in the group setting, the counselor may decide to taper the number of individual counseling sessions. Likewise, the client may prepare for discharge by reducing the frequency or length of sessions, secure in the knowledge that more time is available if needed.

Medical/Psychiatric Approaches

Older substance-abusing clients differ from their younger counterparts in the number and complexity of associated health problems. Unless these problems are recognized and either corrected or stabilized, the patient's participation in substance abuse treatment will be compromised and chances for recovery diminished. Especially in older adults, health problems interact with and impair social and

psychological function, adding to the complex of causes for the patient's dysfunction and disability.

Medications used to modify drinking behavior in older adults must take into account age- and disease-related increases in vulnerability to toxic drug side effects, as well as possible adverse interactions with other prescribed medications. Disulfiram is not generally recommended by the Panel for use in older patients because of the hazards of the alcohol–disulfiram interaction, as well as the toxicity of disulfiram itself.

Naltrexone, an opioid receptor blocker with mild opioid agonist actions, has been shown to reduce drinking in younger alcoholics in controlled studies. A controlled pilot study of its use among older men under age 70 found that these patients tolerated the drug well (Oslin et al., 1997). Moreover, there was suggestive evidence for reduction in drinking relapses in naltrexone treated patients. Acamprosate, a glutaminergic drug, has shown considerable success in reducing drinking in younger alcoholics in European controlled trials (Litten et al., 1996). Acamprosate has not been specifically studied with older adults.

Visual and hearing problems compromise effective coping and the accomplishment of the tasks of daily living, interfere with social functioning, and may prevent effective participation in substance abuse treatment. Accordingly, initial medical assessment of older adults should routinely include screening for visual and auditory problems, and any problems discovered should be corrected as quickly as possible.

Many older alcoholics do without needed health care; linking them to a health care provider can be a profoundly valuable service. The substance abuse treatment program should consider, whenever possible, educating older clients on such health promotion themes as desirable diet and nutrition, daily exercise, sleep hygiene and the benefits of routine health checks.

A thorough, age-specific medical evaluation should be completed for each patient at entry into alcoholism treatment if it was not done by the referring source. The evaluation can be completed in-house in larger programs that have a primary care provider on staff, by a consulting provider, or by the patient's personal physician. Trained nonmedical staff can easily do portions of the evaluation, such as screening for age-related macular degeneration (AMD), a leading cause of blindness in older adults. Positive results would indicate the need for further evaluation by a professional (e.g., referral to an opthalmologist). The treatment program should review this evaluation.

The medical evaluation should always include an assessment of medication use, because of the potential for medication and alcohol interactions. To determine the medication use of older adults, the "brown bag approach" is helpful (Finch and Barry, 1992). The practitioner can ask older adults to bring every medication they take in a brown paper bag (e.g., all medications prescribed by a doctor; all medications, vitamins, etc., they got at the drugstore; any herbs that anyone gave them to try). This will provide an opportunity to better determine potential medication interaction problems.

Chronic mental illness such as depression, bipolar and recurrent major depressive disorders, chronic schizophrenia, and severe anxiety disorders will require ongoing care. Research suggests that some patients with schizophrenia cannot manage the interpersonal intensity of group therapy for addictions and are more suitably managed on a one-to-one basis with an addictions counselor who consults with a psychiatrist (Finlayson, 1995a). Some patients with severe disorders, including some with

dementia, may be better managed in a mental health or long-term care setting than in a substance abuse program, provided a geriatric psychiatrist is involved, at least for consultation.

The epidemiology of depression among older adults is controversial (Weiss, 1994). According to the Epidemiologic Catchment Area Study, depressive symptoms occur in an estimated 15 percent of community residents over the age of 65. Estimates of major depression among the same age group are usually less than 3 percent. Rates of major or minor depression among older adults seeking care from primary care clinicians or residing in nursing homes range from 15 to 25 percent (National Institutes of Health, 1991). Among those hospitalized for physical illnesses, approximately 10 percent suffer from a major depressive disorder, whereas an estimated 30 percent experience minor depressions (Koenig and Blazer, 1996). Despite expectations that rates of depression among older adults would be high, studies have not generally confirmed this view. One reason for this failure may be that "many depressions in this age group are subsyndromal and do not fit well into the current nomenclature" (Koenig and Blazer, 1996, p. 417). Another explanation may be that symptoms "are often lost amid 'real' medical problems of the aged" (Weiss, 1994, p. 5). Researchers estimate that between 10 and 30 percent of older alcoholics have long-lasting or recurrent depressive symptoms (Blazer et al., 1987b). Some fulfill criteria for major depressive disorder, dysthymic disorder, or cyclothymic disorder. Others do not meet criteria for any of these diagnoses yet suffer from depressive symptoms that fall under the category of subsyndromal depression. Depression for several days or longer immediately following a prolonged drinking episode does not necessarily indicate a true comorbid disorder or the need for antidepressant treatment in most cases (Atkinson and Ganzini, 1994; Brown and Schuckit, 1988; Schuckit, 1994). When depressive symptoms persist several weeks following cessation of drinking, specific antidepressant treatment is indicated (Brown et al., 1995).

Family Involvement and Therapy

Involving family members in treatment

The Panel recommends gathering detailed information about the client's relationships from family members in the evaluative and planning phases of treatment. This information will affect treatment planning whether or not family members currently share a home or remain involved in each other's lives, as past events may bear upon the substance abuse. On the basis of the individual's drinking antecedents, the treatment team can decide whether family or marital therapy is appropriate.

Family members, including adult children, can play a critical role in the older client's treatment (Dunlop, 1990; Dunlop et al., 1982; Myers, 1989). Married older alcoholics are more likely to comply with treatment if their spouses also become involved in the treatment process (Atkinson et al., 1993).

The types of individuals who are appropriate to involve in the client's treatment will vary from one client to the next. Some older clients may be out of touch with family members or may live far away from relatives. Dupree and colleagues found that, on average, late onset alcoholics had a total of four friends and four family members with whom they were in contact (Dupree et al., 1984). Daily contacts averaged less than one a day. The person who is closest to the client may be a golfing partner, a housemate, a caseworker or health provider, the bank trustee of the person's estate, or a private social service worker hired by the bank. Some older adults cohabit in long-standing common-

law relationships without marrying out of concern for grandchildren's opinions or for financial or other reasons. Such nontraditional family members may be considered "family" for purposes of treatment.

Eliciting family information requires sensitivity and skill: Older adults are less willing than younger adults to discuss "family business." The client's family may close ranks as well and choose not to disclose events that they fear could hurt or disturb the client. In working with family issues or family groups, a provider should emphasize airing and bringing closure to past conflicts and concerns and negate any blame.

Treatment staff need to be cautious in deciding what information to share, with which family members, and when (if at all). For example, the role of adult children in the client's life can be problematic. Although adult children may have new responsibilities for taking care of the patient, they may also be problem drinkers who collude in the client's drinking, supply the client with alcohol, or help the client rationalize the drinking problem.

Family and marital therapy

The dynamics of a marriage can change drastically as couples grow older. These changes stem from retirement, the deaths of friends, and health issues that affect marital relationships, such as changes in sexual function or the need for caregiving. Any of the issues typically experienced by older adults, such as financial concerns or fear of the death of a spouse, can affect the stability of the marital relationship and place additional stress on the client in treatment.

The best setting for providing counseling to substance-abusing older patients with marital problems may be individual couple counseling or in a group setting with other couples of similar age. Counseling the couple separately from the group is advisable for addressing very personal concerns such as sexual problems or other highly sensitive issues that could be damaging to the couple's marriage.

Case Management, Community-Linked Services, and Outreach

Case management is the coordination and monitoring of the varied social, health, and welfare services needed to support an older adult's treatment and recovery. Case management starts at the beginning of treatment planning and continues through aftercare. One person, preferably a social worker or nurse, should link all staff who play a role in the client's treatment as well as key family members and other important individuals in the client's social network.

The multiple causes of older adults' problems require multiple linkages to community services and agencies. The treatment program that seeks to be the sole source of all services for its older clients is likely to fail. Even in very isolated areas, programs can strengthen their services for older adults through linkages to local resources such as the faith community.

The case manager will likely refer the client to a combination of several community resources in response to the issues associated with the substance abuse problem. Case managers must have strong linkages through both formal and informal arrangements with community agencies and services such as

- Medical practitioners, particularly mental health providers, geriatricians, and geriatric counselors
- Medical facilities for detoxification and other services
- Home health agencies.

- Housing services for specialized housing (i.e., wheelchair-accessible housing, congregate living)
- Public and private social services providing in-home support for housekeeping, meals, etc.
- Faith community (e.g., churches, synagogues, mosques, temples)
- Transportation services
- Senior citizen centers and other social activities
- Vocational training and senior employment programs
- Community organizations that place clients in volunteer work
- Legal and financial services
- The Area Agency on Aging (funded under Title 20).

If a program includes outreach services, case management may offer the best means of providing them (Graham et al., 1995b; Fredriksen, 1992). Case managers may, for example, initiate outreach services for homebound clients, although it is important to maintain continuity and assign only one case manager to an older client. If clients in a treatment program become seriously ill or dysfunctional and temporarily require services at home, a case manager may be the ideal staff person to broker services on their behalf. (Comprehensive case management for substance abuse treatment will be described in detail in a forthcoming TIP to be published in 1998.)

Other Adjunctive Approaches

A number of other treatment approaches are useful in responding to older substance abusers. Generally, however, they work best when they complement the major approaches already discussed.

Spiritual or religious counseling with a clergy member, either in a group or individual setting, may be an important adjunct to therapy for individuals who feel more comfortable addressing their concerns in a religious context. Many older adults are concerned about their spiritual preparation for death, even when it is not imminent, and welcome opportunities to explore that topic.

Substance abuse treatment providers are moving toward a greater recognition of the role of spirituality in recovery, and providers should not hesitate to build on the religious belief systems of older clients, when appropriate. From its inception, Alcoholics Anonymous has spoken of "a higher power," and much of its effectiveness may derive from its spiritual aspects. One caution: Older adults who have never subscribed to a religious belief system may not be ideal candidates for spiritually oriented therapy or referral to 12-Step fellowship programs.

One Panelist observed that spirituality is often a key element in brief interventions, especially in minority communities. Programs that specialize in the treatment of a particular ethnic or racial group may adopt strategies specific to that group (e.g., the use of tribal rituals in the treatment of Native American substance abusers). A variety of nontraditional methods for tension reduction (e.g., therapeutic massage, meditation, acupuncture) have been suggested as applicable to older adults, although these methods remain largely untested.

Discharge Plans and Aftercare

Effective discharge planning is essential to case management for older clients because their social networks may have shrunk as a result of their substance abuse problems, physical limitations, or the loss of family members and friends. In this context, it is vitally important for clients' counselors or case managers to help them tap into available community resources by

assisting them in identifying ongoing needs (e.g., income maintenance, housing), scheduling services (e.g., Homemakers, eye care, hearing tests, financial planning), and obtaining equipment (e.g., large-number telephones, home banking systems, walkers and other devices).

As part of the discharge process, a counselor or case manager also develops an aftercare program with the client. For older adults, this may entail arranging transportation to follow-up appointments and reminders to note dates and times on the calendar, as well as fulfilling more traditional functions like monitoring progress to prevent or reduce the negative impact of relapse. Standard features of most discharge plans for older adults include

- Age-appropriate Alcoholics Anonymous, Pills Anonymous, Rational Recovery, women's or other support groups
- Ancillary services needed to maintain independence in the community
- Ongoing medical monitoring
- Involvement of an appropriate case manager if needed to advocate for the client and ensure needed services are provided.

Aftercare and recovery services for older clients differ in some respects from those typically offered by some substance abuse treatment programs where fraternization is discouraged. Programs oriented to older clients often sponsor socialization groups or weekly treatment alumnae meetings run by long-sober peer counselors. Others allow clients to return to the program to participate in group therapy. Still others initiate a network of contacts for older clients and teach them how to expand it.

Some communities have established, integrated social service networks that enable clients to receive coordinated care. However, stand-alone programs in communities without defined networks may have to initiate linkages with other services themselves. Some treatment programs have begun this process of network building by publicizing their services to other local agencies and health care facilities. Prior consultation with the local Office on Aging and other resources in the community that target older adults helps to ensure that the resulting network is responsive to their special needs. In rural areas, treatment programs serving older adults face additional challenges. In these settings, collaboration among health and social service programs is crucial to resolve problems posed by geography, lack of public transportation, sparse and distant services, and social isolation. CSAT's Technical Assistance Publications *Rural Issues in Alcohol and Other Drug Abuse Treatment* (CSAT, 1996), *Treating Alcohol and Other Drug Abusers in Rural and Frontier Areas* (CSAT, 1995b), and *Bringing Excellence to Substance Abuse Services In Rural and Frontier America* (CSAT, 1997) have more information on surmounting these barriers.

Specialized Treatment Issues for Prescription Drug Abuse

Because so many problems with prescription drug abuse stem from unintentional misuse, approaches for responding to these clients differ in some important respects from treatment for alcohol abuse and dependence. Issues that need to be addressed as part of treatment include educating and assisting patients who misuse prescribed medications to comply consistently with dosing instructions, providing informal or brief counseling for patients who are abusing a prescribed substance with deleterious consequences, and engaging drug-dependent patients in the formal treatment system at the appropriate level of care. In addition, it is important for providers to understand how practitioners' prescribing behavior contributes

to the problem so they can address it both with clients and uninformed health care practitioners in the community.

Misuse by the Patient

Some experts estimate that as many as 70 percent of depressed older patients fail to take 25 to 50 percent of their medications, producing wide fluctuations in blood levels and jeopardizing the efficacy of therapy (National Institutes of Health, 1991). Such widespread misuse of prescriptions requires intensive efforts to determine the reasons for noncompliance and to educate patients about medication management. In general, the causes of noncompliance with a prescribed medication regimen can be categorized as

- A lack of judgment or misconceptions about the drugs
- An inability to manage the medication regimen, either because it is complex or the patient has persistent memory problems and will need regular supervision
- Insufficient resources for purchasing or storing the medications
- Intentional misuse to obtain results other than for those prescribed (e.g., pain pills to sleep, relax, soften negative affect).

Unless patient interventions address the real reasons for noncompliance, they are not likely to be effective. If initial observations and questions about prescription drug use suggest misuse, more information will be needed so that remedies can be appropriately targeted. For example, if a 73-year-old woman is skipping doses of her blood pressure medication, the provider needs to learn whether this happens because (1) the patient only takes the medicine when she feels ill rather than on the prescribed schedule, (2) the medicine sometimes makes her feel unpleasantly dizzy, (3) the patient frequently forgets whether she took the medicine, or (4) the patient cannot afford the drug and tries to do without from time to time so that she will have a supply available when she feels she needs it.

If the patient's noncompliance is due to economic considerations, then teaching her how to manage medications by separating them into container compartments for each day of the week (or hour of the day) will not be helpful. That strategy might be appropriate, however, for another patient who has suffered a stroke and has real difficulty with short-term memory.

Medication noncompliance may take the following forms:

- Omitting doses or changing the frequency or timing of doses
- Doubling up on the dosage after forgetting to take the previous dose
- Taking the entire day's medications in the morning for fear of forgetting to take all the doses of all the medications as prescribed
- Increasing doses or dosing frequency
- Taking the wrong drugs
- Borrowing or sharing drugs
- Supplementing prescribed drugs with other over-the-counter medications or "leftover" medicines from an earlier illness
- Continuing to use alcohol or other contraindicated drugs or foods while taking the prescribed medicines
- Engaging in contraindicated activities while taking the medications (e.g., driving motor vehicles, spending time in the sun)
- Failing to tell the prescribing physician about all the other medications (prescribed and over-the-counter) being used or to report significant or unexpected side effects or adverse reactions
- Storing medications improperly (not refrigerating those that require a continued cold temperature) or using prescriptions with expired expiration dates.

The patient and the health care practitioner share responsibility for ensuring that the patient understands all dosing instructions, the purposes of the medications prescribed, and the unpleasant side effects or adverse reactions that should be reported to the doctor. However, providers can also instruct patients to take advantage of pharmacists' services in providing personal advice and computer-generated instructions regarding specific drugs, side effects of varying intensity and seriousness, contraindications for use, and when beneficial effects can be anticipated. Many materials have already been developed and are widely available for educating older adults and others about medication compliance strategies and their importance. These can be obtained from numerous sources, including home health care agencies, State and local offices on aging, the Substance Abuse and Mental Health Services Administration (through the National Clearinghouse for Alcohol and Drug Information), the National Council on Aging, and the American Association of Retired Persons.

Treatment providers can help empower older adults to ask more questions and optimize the benefits of their contacts with medical professionals. Older patients with some cognitive or sensory impairment may not be able to adhere to complicated medication regimens. In these cases, treatment providers can identify and educate family members or other professional or volunteer advocates and caregivers about the need to assist the older adult with this task.

Once the substance abuse treatment provider identifies a medication misuse problem, arrangements should be made for an initial but intensive monitoring of the patient's use of the problematic drug. Monitoring may be undertaken by visiting or public health nurses or other designated medical staff. The objective is to determine whether misuse continues despite all attempts to correct underlying reasons for noncompliance. If the patient appears to be knowingly noncompliant, the behavior is characteristic of abuse.

The intervention for this behavior will depend on an accurate and in-depth assessment of the social, medical, and psychological problems that may be driving the substance abuse (e.g., depression, bereavement, a medical condition, social isolation, physical pain, insomnia). Assessment results then provide the basis for an individualized treatment plan that includes and ranks mechanisms for addressing each issue. Unless the abuse has resulted in a serious crisis, it is usually appropriate to try psychosocial approaches first, including grief therapy, sleep management training, relaxation techniques, socialization (day care) programs, psychotherapy, and acupuncture.

Once treatment begins to resolve the underlying issues, the provider must confer with the health care practitioner to determine whether the older adult should remain on the problematic drug at a reduced dose, discontinue use altogether, or switch to an alternative prescription with less addictive potential. The choice will depend on what options are available and the severity of the problems experienced as a result of the substance abuse. The Panel recommends an open discussion of these issues with the patient, substance abuse treatment provider, and health care practitioner.

Misuse (Misprescribing) by the Health Care Provider

Health care professionals need to keep abreast of current information about appropriate prescribing practices for older patients as well as new drugs with less hazardous profiles. Older adult-specific protocols must stress medication assessments for all patients; lower initial doses and time-limited dosing patterns for

psychoactive and other agents; use of new and less complex drugs with simple metabolic pathways and less dangerous side effects; avoidance of more hazardous substances with long half-lives that cannot easily be absorbed or eliminated by older adults; and appropriate, consistent monitoring of patients' reactions to prescribed drugs.

Health care professionals also need to be reminded of ways to convey information that are easily understood and used by older patients (e.g., written as well as spoken, disseminated to family caregivers and advocates as well as the patient). When prescribing medications for older adults, it is also useful to consider the family situation. Are other family members likely to share their medication with the patient or use it themselves? Is there a family member who will help the older patient track his medications, comply with the practitioner's request to bring unused medications to the practitioner, remind the patient to discard expired medication, or remove the medication at the practitioner's request? Family members can be important allies in preventing problems from developing or escalating.

Some ways in which health care professionals might be motivated to adopt "best" prescribing practices for older patients include

- Making relevant publications such as this TIP and other resources easily available on the Internet and widely disseminated through medical societies, other health-related professional groups, and health care practitioner training programs
- Adding or updating older adult-specific information in the *Physician's Desk Reference* and other pharmacist-approved publications regarding psychoactive prescription drugs with abuse potential
- Providing Continuing Education Units for attending workshops at medical conferences and other health care professional meetings on prescription drug use and abuse among older patients
- Training primary care physicians and other health care providers to consult more frequently with pharmacists, psychiatrists, and other psychopharmacologists regarding the risk and benefit profiles of the psychoactive drugs they prescribe rather than relying on outdated materials or their own authority
- Empowering older patients and their advocates to ask health care providers questions about the rationale for all proffered prescription medications as well as dosing protocols, schedules, expected and dangerous side effects, and interactions with other medications or food
- Ensuring that any attempts to restrict prescribing practices through legislation and regulations do not encourage prescriptions of more hazardous substances or make legitimately needed medications even more difficult for patients to obtain.

Staffing Considerations

The Consensus Panel recommends that the following principles guide staffing choices in substance abuse treatment programs:

- Whenever possible, employ staff who have completed training in gerontology
- Employ staff who like working with older adults
- Provide training in empirically demonstrated principles effective with older adults to all staff who will interact with these clients.

Credentials and Training for Program Staff

Staff working with older adults need to understand the developmental tasks of aging and the basic principles of educational gerontology—how older adults learn and process material. For this reason, Panel members believe that any program that treats even a few older adults should have at least one staff person who is trained in the specialization of gerontology within his or her discipline. This training should consist of at least a graduate certificate program (6 to 12 months) in the subfield of aging commonly called social gerontology. Staff with professional degrees should have a specialization in gerontology, geriatrics, or psychogeriatrics. If staff lack appropriate credentials, it can be difficult for the program to receive reimbursement from insurance companies or funding from other funding streams.

Any program that seeks to serve older adults should also have a registered nurse on staff. Ideally, this nurse would have a background in physical health, addictions, and gerontology. In freestanding programs that assign only one person to older clients (common in rural areas), a master's degree in nursing with a specialty in gerontology is preferred.

Large programs with interdisciplinary teams should include a registered nurse, a social worker, and chemical dependency counselors. All staff should have master's-level training with specialties in gerontology. The social worker should be prepared to carry out case management roles including liaison to community agencies.

The Panel recognizes that some programs in isolated areas may serve only a few older adults in a mixed-age setting and may be unable to retain staff members with optimal training. In such instances, the staff person chosen to work with older clients should have a strong desire to do so and should have some knowledge of the developmental tasks of aging, even if this is gained through experience rather than formal education. Wherever feasible, programs that have no appropriately trained staff should encourage at least one staff member to attain certification.

Programs with linkages to layers of services—large addictions programs or programs linked to hospitals, health care systems, or multiservice agencies—are common in urban settings. The following professionals should ideally be available to a treatment program, whether as members of the program's treatment teams or as resources available through the program's linkages with other services:

- A geriatrician
- A geriatric psychiatrist
- A geropsychologist
- A gerontological counselor
- A nutritionist
- An activities director or recreational therapist (to make home visits, increase socialization, teach activities to fill leisure time)
- A chaplain or other member of the clergy
- Occupational therapists
- Social workers (clinical, community, administrative)
- Peer counselors (particularly valuable because they have many life experiences in common with clients).

Orientation and training of all staff is a necessity. Staff should understand and believe that the prognosis for recovery for adults in this age group is favorable. They should understand that older adults can learn and change, and they should be capable of showing respect to their older clients. Special training on counseling skills and their application with older adults should be available to peer counselors and other program clinicians on an ongoing basis.

Attributes and Personal Traits

Facilities should project the attitude that they want to serve older adults. When centers offer age-specific programs with staff experienced in aging issues and interested in working with older adults, use by older adults increases (Fleming et al., 1984; Lebowitz, 1988; Lebowitz et al., 1987; Light et al., 1986). Similarly, in the treatment of alcohol abuse, research suggests that age-specific programs may be more attractive and effective (Atkinson, 1995; Kofoed et al., 1987).

It is important that all staff who work with older clients actually like adults of this age group. When hiring, program staff should try to determine how older adults fit into the applicant's life. Does the applicant interact with an older person by choice, as a friend? Does he or she interact with older family members on a regular basis? Does he or she interact with older adults on a regular basis through volunteer activities or other activities in the community?

Staff need a sense of the issues involved in aging. This understanding can be gained through training, empathy, or the personal experience of growing older. With this understanding comes a willingness to listen and to be patient with the older adult's pace of movement and speech. A sense of humor is also important. Nonconfrontational personalities typically work better with older adults. People who prefer an emotional or confrontational approach to therapeutic interaction are not appropriate candidates for work with older adults. Staff should be able to work in groups as trainers or teachers. Staff who work with older adults also need to be flexible and willing to carry out tasks that may not be considered "professional."

Staff members and volunteers need to be open to multiple avenues to recovery. If recovering staff see their own route to recovery as superior or the only way, it may limit their ability to work effectively with older adults, who tend to require more flexible approaches in order to find their path. Effective treatment for the older adult is more holistic, more supportive, and often a great deal more complicated than standard addiction treatment.

6 Outcomes and Cost Issues in Alcohol Treatment for Older Adults

Outcomes research is concerned not only with results of studies but also with determining what exactly should be studied. For alcohol treatment among older adults, for example, should the measure of success be treatment compliance? Amount of alcohol consumed? Level of physical health? Psychological well-being? This chapter reviews compliance studies and prospective studies on treatment for older adults and examines the measures used. Because there have been few systematic studies of alcoholism treatment outcome (Atkinson et al., 1993) or the costs of treatment (Institute of Medicine, 1990) for older adults, this chapter also applies more general studies to that population. There are virtually no outcome studies of prescription drug use treatment for older adults, so this chapter addresses alcohol use only.

The chapter also provides an overview of instruments for measuring various treatment outcomes, instruments that are more important than ever as the health care system moves toward managed care. Payers increasingly are reimbursing only treatment approaches that have been validated by outcome studies—in particular, studies that quantify resource savings. Treatment costs and reimbursement issues are discussed, and the chapter ends with recommendations for future research.

Spectrum of Alcohol Treatment Outcomes

Brief Intervention Outcomes

Randomized controlled trials in other countries have demonstrated that brief interventions can reduce alcohol use and related problems in at-risk or nondependent problem drinkers under age 65 (Saunders et al., 1993; Anderson and Scott, 1992; Persson and Magnusson, 1989; Wallace et al., 1988; Kristenson et al., 1983). (For a more complete discussion of brief interventions, see Chapter 5.) Brief intervention studies have been conducted in health care settings ranging from hospitals and primary health care locations (Chick et al., 1988; Wallace et al., 1988; Babor and Grant, 1992a; Fleming et al., 1997b) to mental health clinics (Harris and Miller, 1990). The first randomized controlled U.S. trial in community-based primary care practices, the Trial for Early Alcohol Treatment (Project TREAT), which studied adults age 65 and younger (Fleming et al., 1997b), found that brief intervention for alcohol problems in

primary care patients reduced both alcohol consumption and consequences.

A study of brief physician advice with at-risk drinkers age 65 and over, Guiding Older Adult Lifestyles (Project GOAL), also found positive changes in drinking patterns of the experimental (n = 158) compared with the control group (n = 71) (Fleming et al., 1997a). At the time of the 12-month followup, there was a significant reduction in 7-day alcohol use ($t = 3.77$; $p < .001$), episodes of binge drinking ($t = 2.68$; $p < .005$), and frequency of excessive drinking ($t = 2.65$; $p < .005$). The results indicated that brief physician advice made a difference in the drinking patterns of older at-risk and problem drinkers.

Most studies of alcohol brief interventions have only included patients early in their drinking careers, explicitly excluding dependent drinkers with significant withdrawal symptoms. The rationale for this practice has been that alcohol-dependent individuals or those affected most severely by alcohol should be referred to formal specialized alcoholism treatment programs because their conditions are not likely to be amenable to a low intensity intervention (Institute of Medicine, 1990; Babor, 1994). However, only one study to date has addressed the validity of this assumption. Sanchez-Craig and colleagues found that when comparing the 12-month treatment outcomes of men who were severely dependent and men who were not, both receiving brief treatment, there were no significant differences in "successful" outcomes as measured by rates of abstinence or moderate drinking (Sanchez-Craig et al., 1991).

Alcohol Treatment Outcomes

The study of treatment outcomes for older adults who meet criteria for alcohol abuse or dependence has become a critical issue because of older adults' unique needs for targeted interventions. Because traditional residential alcoholism treatment programs generally provide services to few older adults, sample size issues have been a barrier to studying treatment outcomes for older alcoholics. The development of elder-specific programs in recent years has, however, yielded sufficient data on older alcoholics to permit more comprehensive studies of this population (Atkinson, 1995).

Previous research on alcoholism treatment in older adults can be divided into two broad categories: compliance studies and outcomes studies.

Studies of treatment compliance

Most treatment outcome research on older alcoholics has focused on compliance with treatment program expectations, in particular the patient's fulfillment of prescribed treatment activities and goals, including drinking behavior (Atkinson, 1995). Results from compliance studies have shown that age-specific programming improved treatment completion and resulted in higher rates of attendance at group meetings than did mixed-age treatment (Kofoed et al., 1987). Studies also show that older alcoholics were significantly more likely than younger patients to complete treatment (Schuckit, 1977; Wiens et al., 1982/1983). Atkinson and colleagues also found that, proportionately, twice as many older male alcoholics completed treatment than younger men (Atkinson et al., 1993).

Age of onset of alcohol problems has been a major focus of research for older adult treatment compliance studies. In one study using a matched-pairs, post hoc design, rates of completion of 6-month day treatment for 23 older men and women alcoholics (age 55 and older) whose problem drinking began before age 50 (early onset) were compared with 23 who began problem drinking after age 50 (late onset) (Schonfeld and Dupree, 1991).

In another study of 132 male alcoholic veterans age 60 and older, the sample was

divided into three subgroups: early onset (age 40 and younger, $n = 50$), midlife onset (age 41 to 59, $n = 62$), and late onset (age 60 and older, $n = 20$) (Atkinson et al., 1990). Age of onset was related to program completion and to weekly group therapy meeting attendance, with the late onset subgroup showing the best compliance in bivariate analyses. However, a subsequent multivariate analysis of 128 men age 55 and older in alcoholism treatment found that drinking relapses during treatment were unrelated to age of onset (Atkinson et al., 1993). Furthermore, age of onset did not predict program completion but was related to attendance rate at scheduled visits (Atkinson et al., 1993). The studies on the effect of age of onset on treatment compliance have therefore yielded mixed results.

In a study of treatment matching, Rice and colleagues compared drinking outcomes for randomly assigned male and female alcoholics 3 months after beginning one of three mixed-age outpatient cognitive–behavioral treatment conditions scheduled to last for 4 months (Rice et al., 1993). The sample included 42 individuals age 50 and older, 134 patients age 30 to 49, and 53 patients age 18 to 29. There were no significant effects of age or treatment condition on treatment compliance. However, there were significant age group-by-treatment condition effects. For older patients, the number of days abstinent was greatest and the number of heavy drinking days fewest among those treated with a focus on self-efficacy rather than a focus on occupation or family issues.

Major limitations remain in the treatment compliance literature, including lack of drinking outcome data, failure to report on treatment dropouts, and variations in definitions of treatment completion. Few carefully controlled prospective treatment outcome studies, even those with sufficiently large numbers of older alcoholics, address the methodological limitations inherent in compliance studies.

Prospective studies of treatment outcomes

Although it is important to examine the factors related to completion of treatment, studies thus far have inherent selectivity bias and provide no information on treatment dropouts or on short- or long-term outcomes of treatment. Other sampling issues may limit the applicability of such studies to larger groups, such as the exclusion of women in some studies and the use of varying age cutoffs that sometimes place individuals as young as 45 in the "older" category.

Problems with previous outcome studies extend beyond sampling to study methods. The majority of studies used relatively unstructured techniques for assessing drinking patterns and alcohol-related symptoms. Furthermore, the assessment of outcomes has been narrow in focus. Most studies have dichotomized treatment outcome (abstention vs. relapse) based solely on drinking behavior. Given evidence from numerous studies that heavy or binge drinking is more strongly related to alcohol consequences than average alcohol consumption (Anda et al., 1988; Chermack et al., 1996; Kranzler et al., 1990), there may be important differences in outcome for nonabstinent individuals depending on whether binge drinking was part of the posttreatment pattern. Current recommendations include categorizing nonabstinent drinking outcomes along dimensions, such as whether drinkers ever drink to the point of intoxication (Heather and Tebbutt, 1989). Furthermore, most studies have not addressed other relevant domains that may be positively affected by treatment, such as physical and mental health status and psychological distress.

One reason for the lack of prospective treatment outcome studies is that studying older alcoholics during and after treatment is so complex. One exception is a study of 137 male veterans (age 45 to 59 years, $n = 64$; age 60 to 69 years, $n = 62$; age 70 years and older, $n = 11$) with alcohol problems who were randomly assigned after detoxification to age-specific treatment or standard mixed-age treatment (Kashner et al., 1992). Outcomes at 6 months and 1 year showed that elder-specific program patients compared with mixed-age group patients were 2.9 times more likely at 6 months and 2.1 times more likely at 1 year to report abstinence. The two treatment groups, however, could not be adequately compared at baseline because baseline alcohol consumption and alcohol severity data were not included in the study.

Recognizing that older individuals have been underrepresented in standard alcoholism treatment programs (Booth et al., 1992; Higuchi and Kono, 1994), as well as in treatment outcome studies (Atkinson, 1995), the Institute of Medicine published a special report calling for specific longitudinal studies focused on factors associated with more successful treatment outcomes in older adults (Institute of Medicine, 1990).

Blow and colleagues conducted a study to determine outcomes for older adults receiving specialized elder-specific inpatient alcoholism treatment (Blow et al., 1997). A range of treatment outcomes was assessed using a prospective longitudinal design. To address limitations of previous studies, this study used validated techniques to assess baseline alcohol symptoms and psychiatric comorbidity, age of onset of alcohol problems, drinking patterns, physical and emotional health functioning, and psychological distress. Followup was conducted 6 months after discharge. This study also examined a range of different drinking outcomes, including abstinence, nonbinge drinking, and binge drinking.

Adults over the age of 55 in the treatment program ($n = 90$) were interviewed. The physical health functioning of the sample was similar to that reported by seriously medically ill inpatients in other studies, whereas psychosocial functioning was significantly worse. Nearly one-third of the sample had one or more comorbid psychiatric disorders, with anxiety disorders and major depression most common.

Participants who completed the 6-month followup assessment ($n = 68$; 76 percent of the original sample) were classified into the following outcome groups: abstainers ($n = 38$), nonbinge drinkers (who never exceeded four drinks on any drinking day during the followup period; $n = 12$), binge drinkers (who had one or more days in which they consumed five or more drinks; $n = 18$), and noncompleters (who did not complete the 6-month followup assessment; $n = 22$). These groups did not differ significantly on demographic variables, pretreatment drinking patterns and symptoms, age of onset of alcohol problems, psychiatric comorbidity, or length of stay in treatment. For all groups who completed the 6-month followup, there were improvements in general health. Psychological distress decreased significantly between baseline and followup for abstainers and nonbinge drinkers. However, binge drinkers did not show a decline in psychological distress and were significantly more distressed at 6-month followup than both the abstainers and nonbinge drinkers.

Measurement of Multidimensional Outcomes for Older Adults

Consumption levels are not the only measure of success: Drinking patterns, alcohol-related problems, physical and emotional health functioning, and quality of life can also be used to assess alcohol intervention and treatment outcomes with populations of older adults. It is particularly important to use benchmarked methods to assess older adults to determine whether treatment regimens are effective. Older adults have unique issues based on changes in physical functioning, changes in tolerance to alcohol, and internal (e.g., hearing, eyesight) and external (e.g., death of spouse, retirement) losses requiring a multidimensional approach to assessment and outcome evaluation to ameliorate potential reasons for relapse or a return to hazardous drinking.

Outcome assessment is invaluable from both a management and a referral perspective. The providers of treatment, the clinicians and agencies referring patients, and patients themselves need to have information regarding the likely outcomes of treatment. Because treatment options range from brief interventions to structured outpatient and inpatient treatment programs, evaluation is recommended at varying points in the treatment process (McLellan and Durell, 1996). Initial evaluation in any setting should take place at the beginning of the intervention or treatment to obtain baseline data. McLellan and Durell recommend conducting first followup evaluations 2 weeks to 1 month after the patient leaves the inpatient setting. The short time frame reflects the need to determine if the patient is engaged in aftercare with an outpatient program to maximize the effect of inpatient treatment.

A review of the literature on patients receiving substance abuse treatment indicated that 60 to 80 percent of people who relapse do so within 3 to 4 months (McLellan et al., 1992). Older adults who comply fully with and complete the intervention or treatment, however, are more likely than younger adults to positively change their drinking behavior (Finch and Barry, 1992). Therefore, outpatient outcomes should be assessed no sooner than 3 months and possibly as long as 12 months after treatment (McLellan and Durell, 1996). For all types of intervention and treatment, ongoing outcome evaluation is important since the course of alcohol problems in older adults is dynamic and changes over time with circumstances. Additional life stressors can change the pattern of alcohol use in this age group.

In response to the rising costs of treatment and concerns about the effectiveness of alcohol treatment for both younger and older adults, the demand to evaluate and demonstrate the quality of a variety of treatment options has also grown. For the purposes of this section, outcome measurement will include methods to measure alcohol use and alcohol-related problems, physical and emotional health functioning, and quality of life and well-being.

Measures of Alcohol Use

Drinking patterns can be assessed using approximations such as average number of drinking days per week and average number of drinks per occasion or day. Two of the instruments assessing average consumption are the Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 1992b) and the Health Screening Survey (HSS) (Fleming and Barry, 1991), both of which are reproduced in Appendix B. The AUDIT, which has been

validated internationally and with populations under age 65 in the United States, assesses quantity and frequency of alcohol use as well as alcohol-related problems (Babor et al., 1987; Fleming et al., 1991; Barry and Fleming, 1993; Schmidt et al., 1995).

The HSS, originally developed by Wallace and Haines and adapted by Fleming and Barry, measures average quantity and frequency of alcohol use in the previous 3 months (Wallace and Haines, 1985; Fleming and Barry, 1991) and includes parallel questions about weight, exercise, and smoking. It has been validated in people under 65 in primary care settings in the United States (Fleming and Barry, 1991) and has been used with older adults as part of a brief intervention trial (Fleming et al., 1997a).

The most accurate method used to assess current alcohol consumption is the Time Line Follow Back (TLFB) procedure. TLFB is a structured interview that uses calendar cues (e.g., holidays, family events, trips) to quantify daily alcohol use over a period of time ranging from 7 days to a number of months (Sobell et al., 1988, 1996). Researchers have used this method to obtain up to 1 year of drinking data. This method has shown high test-retest reliability in a variety of drinking populations ranging from normal drinkers to heavy drinkers to persons participating in inpatient or outpatient treatment. Fleming and colleagues used this procedure to assess 7-day alcohol use with adults age 65 and older as part of the initial assessment in a clinical trial to test the effectiveness of brief physician advice with older at-risk and problem drinkers (Fleming et al., 1997a).

Measures of Alcohol Problems

It is necessary but not sufficient to determine quantity and frequency of alcohol use for initial and followup assessments in older adults. The use of multidimensional screening and outcome instruments provides clinicians, programs, and referral agencies with measurements regarding the nature and severity of problems presented by persons who abuse alcohol.

An important multidimensional screening instrument for use specifically with older adults is the Michigan Alcoholism Screening Test—Geriatric version (MAST-G) (Blow et al., 1992a) (See Figure 4-4). This tool was developed because many of the screening measures did not identify alcoholism among older adults as reliably as among younger populations. The MAST-G was validated using criteria for alcohol dependence in the *Diagnostic and Statistical Manual of Mental Disorders*, Third Edition, Revised (American Psychiatric Association, 1987) as the gold standard on 305 older adults including (1) persons currently meeting alcohol dependence criteria but not in treatment, (2) those currently in treatment, (3) those with a previous history of alcoholism but in recovery, (4) social drinkers, and (5) abstainers.

The MAST-G is a 24-item scale (sensitivity = 0.94; specificity = 0.78) in which a score of five or more "yes" responses indicates an alcohol problem. Scores do not discriminate between current and past problems, although some items address the current situation and others address problems in the past. Tolerance is not measured in light of data indicating that older adults with even low consumption can experience alcohol-related problems due to physiological changes that occur with age.

The Addiction Severity Index (ASI) (McLellan et al., 1985; McLellan et al., 1990) was developed specifically to assess over time the alcohol-related problems and the severity of symptoms of patients in treatment for alcohol and drug abuse and dependence. The ASI is a semistructured interview that provides information about aspects of the patient's life that may contribute to the substance abuse syndrome. The focus of the interview is on

seven functional areas that have been shown to be affected by substance abuse: medical status, employment and support, drug use, alcohol use, legal status, family and social status, and psychiatric status. Each area is assessed individually for past and present (last 30 days) status. Each area has a 10-point interviewer-determined severity rating of lifetime problems and a multi-item composite score indicating severity of the problems in the last 30 days.

The ASI is targeted to all adult populations in substance abuse treatment or in treatment for co-occurring psychiatric and substance abuse disorders. The ASI has good interrater reliability as well as good predictive, concurrent, and discriminant validity (McLellan et al., 1985). Although it has not been widely used or validated with older patients and is not generally used with patients who are at-risk or problem drinkers in primary care or community-based settings, it is included in this review because it is a standard measure in the field and can provide important information regarding older adults in treatment settings, particularly in areas of greatest concern with this population—medical status, alcohol use, family and social status, and psychiatric status.

Measures of Physical and Emotional Health

One of the most widely used measures of physical and emotional health is the Medical Outcomes Study 36-Item Short Form Health Survey (SF-36). This instrument was originally developed for use with adults as a 20-item scale for the Medical Outcomes Study (MOS) (Ware and Sherbourne, 1992; Tarlov et al., 1989; Stewart et al., 1988) from more detailed measures used in the Rand Health Experiment. It was subsequently expanded to 36 items that measure physical functioning, limitations in functioning due to physical health problems, social functioning, bodily pain, general mental health, limitations in role functioning due to emotional problems, vitality, and general health perceptions. The SF-36 has published norms for these various subscales over distinct age groups, including older adults (McHorney et al., 1993).

In addition to the subscales addressed in the SF-36, other measures of psychological distress are useful in alcohol outcomes assessment with older adults. The Symptom Checklist-90-Revised (SCL-90-R) (Derogatis, 1994b) is a self-report symptom inventory designed to measure psychological distress. The Brief Symptom Inventory (BSI) is a brief form of the SCL-90-R (Derogatis and Melisaratos, 1983). These tests provide an overview of a patient's symptoms and identify the level of distress that a patient is experiencing during a specific time period (e.g., "the last 7 days"). Both the SCL-90-R (90 items) and the BSI (53 items) measure nine symptom dimensions: somatization, obsessive-compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Each of the tests also has three global measures of distress, a measure of the intensity of distress, and a measure of the total number of patient symptoms.

Depending on the population being assessed, the internal consistency for the SCL-90-R ranges from 0.77 to 0.90; for the BSI, from 0.71 to 0.85. Test–retest reliability ranges from 0.80 to 0.90 for the SCL-90-R (with a 1-week interval between tests) and from 0.61 to 0.91 for the BSI. When used for outcome measurement, these measures are often administered at intake, during treatment, at discharge, and at followup intervals (Smith, 1996).

Measures of Quality of Life

Quality of life measures have most frequently been used for outcomes assessment in mental health treatment. One of the most widely used instruments is the Quality of Life Interview

(QLI) (Lehman, 1988). Research suggests that quality of life, as perceived by the patient, is an important factor in maintaining optimal functioning. The quality of life measure is constructed to include a single-item measure of general well-being and seven dimensions of well-being. The constructs and dimensions in this scale are applicable to the alcohol treatment field, particularly in outcomes assessment with older adults for whom concerns about housing, leisure, family, social relationships, health, safety, and finances are salient factors in functioning and relapse.

Internal consistency reliabilities range from 0.79 to 0.88 for the life satisfaction scales and from 0.44 to 0.82 for the objective quality of life scales. Normative data are available for various subgroups of patient populations, and the life satisfaction items can be compared with national norms in the general population.

Costs of Alcohol Treatment

Outcomes studies obviously can help treatment providers and health care professionals improve treatment. They also play an important role in paying for treatment: Third-party payers want validated proof that the treatment approaches they are reimbursing actually work. The other side of this equation is the cost—to individuals, the health care system, and society at large—of alcohol-related problems. If costs of treatment can be measured against these larger costs, it is more likely that treatment will be reimbursed.

The costs of alcohol abuse and dependence are estimated to be over $100 billion a year, due in part to increased mortality, significant social costs, and health consequences (National Institute on Alcohol Abuse and Alcoholism, 1995; Brower et al., 1994; Holder and Blose, 1992; Goodman et al., 1991). Individuals who have alcohol disorders are among the highest cost users of medical care in the United States. Persons with alcohol dependence, who represent between 3 and 14 percent of the U.S. population, consume more than 15 percent of the national health care budget (Rice et al., 1993). Although a number of cost studies have examined drinking in younger adults (Holder et al., 1991; Holder and Blose, 1992; Finney and Monahan, 1996), few studies have separated the costs of alcohol disorders for older adults or even included older adults in cost analyses. In a study of Federal employees, one half of whom were over age 60, Holder and Blose analyzed 4 years of claims data (Holder and Blose, 1986). They found that alcohol treatment contributed to sustained reductions in total health care utilization and costs and that reductions in posttreatment costs appeared to be sustained into the fourth and fifth years following treatment.

In a review of studies of alcohol treatment and potential health care cost savings that included Medicare studies, Holder found that mean monthly medical care costs increased for persons with alcohol problems before initiation of treatment, declined immediately following treatment, and continued to decline 2 years following treatment (Holder, 1987). The oldest group in the study (age 65 and older) experienced the highest medical care costs and showed the least convergence to levels prior to the initiation of alcohol treatment. Reasons for this might include increased general morbidity with age and the potentially more serious health problems due to a longer period of chronic alcohol abuse or dependence.

Among all of the economic analyses of alcohol programs, there has been little work regarding the cost savings of substance abuse prevention and early intervention in managed care settings. One of the few recent studies of managed care (Holder et al., 1995) estimated that for every $10,000 spent on brief intervention

for alcohol or drug abuse, $13,500 to $25,000 is saved in medical spending for the managed care provider. Gaps remain in the literature regarding the economic effectiveness and implications of brief interventions in managed care settings. Filling in the gaps is particularly important because managed care providers are challenged to provide needed services with fewer dollars.

Findings on the efficacy and cost-effectiveness of brief intervention, however, can be misleading (Heather, 1995; Peele, 1990). These reviews generally do not assess costs and needs of older adults in these settings. Methodologies across cost analysis studies have not been consistent, making comparisons more difficult. In addition, Heather points out problems in interpreting the data from brief intervention studies because brief interventions are not a homogeneous entity (they vary in length, structure, targets of intervention, and personnel responsible for delivery), and there is a distinction between treatment seekers (e.g., persons who answer ads indicating that they would like to decrease their drinking) and nontreatment seekers (e.g., individuals with regularly scheduled appointments for medical problems who receive interventions from their health care providers) (Heather, 1995). Clear delineation of the type of study and the potential audience for the research can help to alleviate problems of misinterpretation.

Most economic studies of alcohol treatment have focused on hospital inpatient and outpatient treatment for abuse and dependence (Peele, 1990; Annis, 1986). Peele's review of the literature revealed that, although hospital treatment is no more effective than outpatient treatment, reimbursement systems have often supported the more costly, medically based inpatient treatment options (Peele, 1990).

Some experts suggest that effectively treating alcoholism and reducing the social and medical consequences of alcohol disorders will yield the largest savings in a reformed American health care system (McCrady and Langenbucher, 1996).

Reimbursement Issues in The Treatment of Older Adults

The barriers to care experienced by many individuals who need intervention or treatment for problems related to their alcohol use have been of great concern to the alcohol treatment field. A further concern has been the observation that only a small minority of those who need treatment has received it (Institute of Medicine, 1990). It has not always been clear if this is due to the lack of identification and referral of those who need treatment, the lack of treatment options, or financial barriers to care. All of these barriers may affect older adults. Currently, however, the financial barriers are changing the fastest—and some of the shifts in reimbursement are alarming.

Private third-party insurers are funded through premiums paid by purchasers, with premiums adjusted based on claims made by any subscriber group. Generally, except for self-insured plans, coverage minimums and premiums are regulated by States through their insurance departments. Medicare is generally thought of as a public third-party payer for health care services. The benefits provided are authorized through legislation.

The current trend, however, is for States to turn their Medicare programs over to managed care companies. Although, since its inception in 1965, Medicare has generally covered 12 days of inpatient alcohol treatment, most managed care companies eliminate coverage for as much inpatient treatment as possible and often cut services for alcohol treatment altogether to keep costs down.

These cuts in coverage are antithetical to all that is known about treating older adults with alcohol problems. Coverage of 12 days of inpatient treatment is extremely important for older adults because they are likely to have a greater number of physical and cognitive problems than younger adults. For example, older adults often have more prolonged and severe alcohol withdrawal than younger adults (Brower et al., 1994), and participation in group treatment is more difficult for them in the early stages of treatment. They are also more likely to need more intensive outpatient care after an inpatient stay than younger adults.

Furthermore, Medicare should reimburse for alcohol prevention and early intervention efforts in primary care settings, because research indicates that early intervention programs are effective with a large proportion of older at-risk and problem drinkers. Such initiatives will save the medical community money by preventing more costly complications of heavier alcohol intake.

With ongoing changes in the delivery of alcohol treatment services from inpatient to outpatient settings coupled with the shifting reimbursement structure from fee-for-service Medicare to managed Medicare, coverage of effective treatment is increasingly uncertain. The changes in treatment venue and fee structures underscore the importance of conducting multidimensional outcomes assessments in the context of quality management. Convincing research is an important component of efforts to ensure that older adults who need intervention and treatment for alcohol problems receive the appropriate level of treatment and adequate followup. Ongoing evaluation of patient outcomes can help safeguard the health of at-risk older adults and foster the development of innovative treatment approaches to meet the needs of this vulnerable population.

Areas Requiring Future Research

As the number of older adults rises, the use of mood-altering drugs such as alcohol and tranquilizers by older adults is a growing area of concern from a clinical and research perspective. As the Baby Boom generation reaches traditional retirement age, the field of substance abuse treatment and research will be faced with both growing numbers of individuals who have alcohol-related problems and emerging problems unique to the aging population, namely a potential increased prevalence of illicit drug use and drug-related problems.

Even though the prevalence of alcohol and drug use decreases with age, alcohol and prescription drug use continue to be important health problems in the current cohort of older adults. To advance the field and address coming needs of future older adults, research needs to be focused in some specific areas. The general areas for new research initiatives are (1) alcohol and other drug consumption, (2) treatment, (3) biomedical consequences, (4) behavioral and psychological effects, and (5) special issues.

In the area of *alcohol and other drug consumption*, future research directions should include

- Life course variations among alcohol, illicit drug, and prescription drug use patterns
- Gender and ethnic variability
- Reasons for changes in drinking and drug use patterns with aging
- Early and late onset of alcohol and drug problems
- Health care costs for older adults maintaining abstinence compared with costs for those who reduce their consumption
- Development of valid screening instruments for illicit and prescription drug use.

Issues related to *treatment* have traditionally been studied in males and younger cohorts of adults. Some of the issues requiring both new and renewed study with older adults include

- Prevention and early intervention techniques
- The use of technology (e.g., computers, interactive voice recognition) in the treatment of substance abuse problems in older adults
- The effectiveness of various older adult-specific alcohol and drug treatment modalities
- Alcohol and drug withdrawal issues
- The effect of physical and psychiatric comorbidity on treatment outcomes
- Older subgroups (i.e., 60–65, 65– 70, 70–75, 75–80, 80+)
- Relationship of provider characteristics (e.g., age, similarity to client) to completion of treatment
- Risk factors for drinking and drug use relapse, including a better understanding of specific treatment needs for older adults.

Biomedical research can forge a new and important path in the understanding of alcohol use and abuse in older adults. Directions include

- The effects of alcohol and drugs on aging organisms
- Alcohol and drug medication interactions
- Physiological reasons for increased sensitivity to alcohol as people age
- Medical consequences of moderate and heavy drinking and illicit drug use
- Interactions of alcohol, nicotine, and illicit drugs.

Behavioral and psychological research initiatives may be focused in the following directions:

- Demographics relating to older adult alcohol and drug use and abuse (relationship between drinking and drug use status and employment, marital status, residence, education, and other variables specifically affecting older adults)
- Older adults' reasons for changing their drinking patterns
- Stress, coping, and adaptation, and their relationship to alcohol and drug use
- Cognitive effects of moderate and heavy drinking and drug use in this age group.

Finally, there are some *special issues* related to older adult substance abuse that have been the target of clinical concern and some initial research, which needs to be expanded in order to address the needs of the current and future cohorts of older adults:

- Elder abuse and neglect
- Homelessness
- Underrepresentation of older adults in treatment settings.

Researchers in gerontology, substance abuse treatment, and related fields must take the lead in providing the above information. Only with such knowledge can clinicians and policymakers improve the identification and treatment of substance use disorders among older adults. Without the information—and the response—such disorders will take a greater and greater toll on one of the most vulnerable and fastest growing sectors of the population.

Appendix A
Legal and Ethical Issues

by Margaret K. Brooks, Esq.[1]

Screening any population for substance abuse raises key legal and ethical concerns: how one can inquire about an individual's alcohol and drug use while continuing to respect that person's autonomy and privacy. Screening of older adults for substance abuse brings these concerns into particularly sharp focus—whether the person screening is a clinician, a staff member at a senior center, a member of the clergy, an adult protective service worker, a Meals-On-Wheels volunteer, a pharmacist, a community health worker, an adult day care worker, or staff member at a long-term care facility.

This appendix examines how the issues of autonomy and privacy (or confidentiality) affect the way providers working with older adults may screen for substance use problems. The first section discusses the relationship between patient or client autonomy and the provider's obligation to inform and counsel the older individual about the health risks of alcohol or other drug use. The second section concerns privacy of information about substance use problems: How can a provider keep accurate records and communicate with others concerned about the older individual's welfare without disclosing information that may subject the individual to scorn or create problems with family or third-party payers?

Autonomy and the Provider's Mission: A Dilemma

Americans attach extraordinary importance to being left alone. We pride ourselves on having perfected a social and political system that limits how far the government—and others—can control what we do. The principle of autonomy is enshrined in our Constitution, and our courts have repeatedly confirmed our right to make our own decisions for ourselves.

Most of us cherish our autonomy and fear its loss, particularly as we age. Although providers who screen or assess for substance abuse do so because they are genuinely concerned about an individual's health or functioning, screening

[1] Margaret K. Brooks is an independent consultant in Montclair, New Jersey.

means seeking very personal information—an unavoidable intrusion on a person's autonomy and privacy. Alert to suggestions that their judgment or abilities are impaired, older adults may not always see a provider's effort to "help" as benign.

Performed insensitively, screening or assessment may intensify denial. A person of any age who is "in denial" may not realize, or want to realize, that he has to cut back on or give up his intake of alcohol or prescription medications; an older person may view the provider's questions and suggestions as intrusive, threatening, and offensive. Suggestions that an older individual's complaint has an emotional basis may tap an underlying reluctance to acknowledge an emotional component to any problem and reinforce the individual's resistance. Because the substance abuse label carries a powerful stigma, an older individual may become alarmed if a provider intimates that alcohol or drug abuse may be involved. It will be tempting for the older individual to point to the "normal" infirmities of old age as the source of his difficulty rather than acknowledge a problem with alcohol or other drugs.

How can the provider raise the question of alcohol and drug use constructively, without eliciting a defensive response? Should she raise the issue and then drop it at the slightest hint of resistance on the part of the older individual? Or should she intervene more forcefully—with argument or by involving the family?

To fulfill her ethical responsibility, the provider should do more than simply raise the issue. As the Consensus Panel suggests, most older adults are unaware that their metabolism of alcohol and prescription drugs changes as they age and that lower amounts of alcohol and medicines may incapacitate them. Respect for a person's autonomy means informing him of all relevant medical facts and engaging him in a discussion about his alternatives. If there is a substance abuse problem, the provider can supply the information and encouragement, but only the person with the problem has the power to change what he is doing. Respecting the patient's autonomy—his right to make choices—is central to encouraging that change.

Privacy and Confidentiality

Aside from perceived threats to autonomy, an older person may also be concerned about the practical consequences of admitting a substance use problem. Such patients may find it difficult or impossible to obtain coverage for hospitalization costs if an insurer or health maintenance organization (HMO) learns that their traumatic injuries were related to alcoholism. Relationships with a spouse, children, grandchildren, or friends may suffer. Adverse consequences such as these may discourage patients with substance use problems from seeking treatment.

Concern about privacy and confidentiality is fueled by the widespread perception that people with substance use disorders are weak and/or morally impaired. For an older person, this concern may well be compounded by an apprehension that others may view acknowledgment of a substance use disorder as a sign of inability to continue living independently. If the individual is having family problems—with a spouse or with children—information about substance use could have an adverse impact on resolution of those problems. Or the individual may experience difficulties with health insurance.

Federal Law

The concern about the adverse effects that social stigma and discrimination have on patients in recovery (and how those adverse effects might

deter people from entering treatment) led the Congress to pass legislation and the U.S. Department of Health and Human Services to issue a set of regulations to protect information about individuals' substance abuse. The law is codified at 42 U.S.C.§ 290dd-2. The implementing Federal regulations, "Confidentiality of Alcohol and Drug Abuse Patient Records," are contained in 42 CFR Part 2 (Vol. 42 of the Code of Federal Regulations, Part 2).

The Federal law and regulations severely restrict communications about identifiable individuals by "programs" providing substance use diagnosis, treatment, or referral for treatment (42 CFR§ 2.11). The purpose of the law and regulations is to decrease the risk that information about individuals in recovery will be disseminated and that they will be subjected to discrimination and to encourage people to seek treatment for substance use disorders.

In most settings where older adults receive care or services, Federal confidentiality laws and regulations do not apply.[1] Providers should be aware, however, that if a health care practice or social service organization includes someone whose primary function is to provide substance abuse assessment or treatment and if the practice or organization benefits from "Federal assistance,"[2] that practice or organization must comply with the Federal law and regulations and implement special rules for handling information about patients who may have substance abuse problems.[3]

Moreover, the fact that most providers for older adults are not subject to the Federal rules does not mean that they can handle information about their clients' substance use problems in a cavalier manner. Because of the potential for damage, providers should always handle such information with great care.

State Law

Although Federal rules do not restrict how most providers gather and handle information about an older individual's substance abuse, there are other rules that may limit how such information may be handled. State laws offer some protection to medical and mental health information about patients and clients. Most doctors, social service workers, and clients think of these laws as the "doctor-patient privilege" or "social worker-client privilege" or "psychotherapist-patient privilege."

Strictly speaking, these privileges are rules of evidence that govern whether a professional provider can be asked or compelled to testify in a court case about a patient or client. In many States, however, laws offer wider protection. Some States have special confidentiality laws that explicitly prohibit physicians, social workers, psychologists, and others from divulging information about patients or clients without consent. States often include such prohibitions in professional licensing laws; such laws generally prohibit licensed professionals from divulging information about patients or clients, and they make unauthorized disclosures grounds for disciplinary action, including license revocation.

Each State has its own set of rules, which means that the scope of protection offered by State law varies widely. Whether a communication is "privileged" or "protected" may depend on a number of factors:

- The type of professional provider holding the information and whether he or she is licensed or certified by the State
- The context in which the information was communicated
- The context in which the information will be or was disclosed
- Exceptions to any general rule protecting information, and

- How the protection is enforced.

Professionals covered by the "doctor-patient" or "therapist-client" privilege

Which professions and which practitioners within each profession are covered depends on the State where the professional practices. California, which grants its citizens "an inalienable right to privacy" in its Constitution, has what may be the most extensive protections for medical (including mental health) information. California law protects communications with a wide variety of professionals, including licensed physicians, nurses, and psychotherapists (which includes clinical social workers, psychologists, marriage and family counselors), as well as many communications with trainees practicing under the supervision of a number of these professionals. A California court has held that information given to an unlicensed professional by an uneducated patient may be privileged if the patient reasonably believes the professional is authorized to practice medicine.[4]

Other States' laws cover fewer kinds of professionals. In Missouri, for example, protection is limited to communications with State-licensed psychologists, clinical social workers, professional counselors, and physicians.

Depending on their professional training (and licensing), primary care physicians, physician assistants, nurse-practitioners, nurses, psychologists, social workers, and others may be covered by State prohibitions on divulging information about patients or clients. Note that even within a single State, the kind of protection afforded information may vary from profession to profession. Professional providers should learn whether any confidentiality law in the State where they practice applies to their profession.

The context in which the information was communicated

State laws vary tremendously in this area, too. Some States protect only the information that a patient or client communicates to a professional in private, in the course of the medical or mental health consultation. Information disclosed to a clinician in the presence of a third party (like a spouse) is not protected. Other States, such as California, protect all information the patient or client tells the professional or the professional gains during examination.[5] California also protects other information acquired by the professional about the patient's mental or physical condition, as well as the advice the professional gives the patient.[6] When California courts are called upon to decide whether a particular communication of information is privileged, State law requires them to presume that it is.

California affords great protection to communications between patients and psychotherapists, a term that covers a wide range of professions. Not only are communications by and to the patient protected, information communicated by a patient's intimate family members to therapists and psychiatric personnel[7] is also protected. California also protects information the patient discloses in the presence of a third party or in a group setting.

Understanding what medical information is protected requires professional providers to know whether State law recognizes the confidentiality of information in the many contexts in which the professional acquires it.

Circumstances in which "confidential" information is protected from disclosure

Some States protect medical or mental health information only when that information is sought in a court proceeding. If a professional

divulges information about a patient or client in any other setting, the law in those States will not recognize that there has been a violation of the individual's right to privacy. Other States protect information in many different contexts and may discipline professionals who violate their patients' privacy, allow patients to sue them for damages, or criminalize behavior that violates patients' privacy. The diversity of State rules in this area compounds the difficulty professionals face in becoming knowledgeable about what rules apply to them.

Exceptions to State laws protecting medical and mental health information

Consent

All States permit health, mental health, and social service professionals to disclose information if the patient or client consents. However, each State has different requirements regarding consent. In some States, consent can be oral; in others, it must be written. States that require written consent sometimes require that certain elements be included in the consent form or that everyone use a State-mandated form. Some States have different consent forms with different requirements for particular diseases.

Other exceptions

Consent is not the only exception. All States also require the reporting of certain infectious diseases to public health authorities and some require the reporting of elder abuse to protective service agencies, although definitions of "infectious disease" and "elder abuse" vary. And most States require health care professionals and mental health counselors to report to the authorities threats patients make to inflict harm on others. There are States that permit or require health care professionals to share information about patients with other health care professionals without the patients' consent, but some limit the range of disclosure for certain diseases, like HIV. Most States make some provision for communicating information to health insurance or managed care companies.

Many of the situations that physicians and social service workers face daily—processing health claims or public benefit applications, for example—are covered by one of these exceptions. To fully understand the "rules" regarding privacy of medical and mental health information, professionals must also know about the exceptions to those rules. Those exceptions are generally in the statute books—in either the sections on evidence or the professional licensing sections, or both. The state licensing authority as well as professional associations can usually help answer questions about State rules and the exceptions to those rules.

Enforcing confidentiality protections

The role of the courts

To determine the "law"—that is, the rule one must follow—in any particular area, an attorney will search for statutes, regulations, administrative rulings, and court decisions. There is no question that in this country, the courts play a large role in "making" law—particularly in an area like privacy, which involves human behavior, shades of meaning, and intent. No legislator drafting a statute (or bureaucrat drafting a regulation) can foresee all the circumstances under which it may be applied. When one party sues another, a court is forced to decide whether a provider's disclosure of medical information was appropriate or whether such information should be disclosed during the lawsuit itself.

For example, after a car crash, the drivers may sue each other and ask the court to order the disclosure of medical records. Or the victim of an assault by an adolescent may sue the parents and seek disclosure of medical records

to prove they knew their child was dangerous. How a court decides whether to order disclosure in such cases will depend on a variety of factors, including State law and regulation, court rules, and the relevance of the information sought to the dispute at hand. Similarly, when a patient or client sues a professional for releasing information to someone without her consent, the court will be called upon to weigh a variety of factors to decide whether the disclosure violated what the State recognizes as the patient's privacy.

Over time, court decisions like these add flesh to the bare statutory and regulatory rules and suggest how those rules will be applied the next time. When a difficult case arises that does not fit neatly within the rule of law as understood, it may be helpful to consult with an attorney familiar with the rules and how the State's courts are likely to interpret them.

Penalties for violations

States differ in the ways they discipline professionals for violations of patients' or clients' privacy. In some States, violation of confidentiality is a misdemeanor, punishable by a fine or short jail term. In many States, the professional licensing agency has the power to bring disciplinary charges against a professional who violates a client's privacy. Such charges may result in censure or license suspension or revocation. Finally, the State may permit the aggrieved patient or client to sue the professional for damages caused by the violation of his right to confidentiality.

The reality is, these enforcement mechanisms are rarely used. States rarely prosecute privacy violation offenses and professional disciplinary committees in most States are more concerned with other kinds of professional infractions. That is not to say that violation of a patient's privacy is cost-free. A patient or client who thinks he has been hurt by a professional's indiscretion is free to sue; while such cases are difficult for clients to win, they can cause the professional and the organization employing her a good deal of grief—financial, emotional, and professional. Even short of litigation, no professional wants to acquire the reputation of being thoughtless or indiscreet.

Strategies for Dealing With Common Situations

Charting substance use information

One way for a professional to safeguard clients' privacy and avoid breaking the rules is to develop a charting, or record-keeping, system that is accurate but still protects clients' rights to privacy and confidentiality. It is important to remember how many people could see a client's medical, mental health, or social service record. A medical chart, for example, will be seen by the medical office staff, the insurance company (or HMO or managed care organization [MCO]), and in the event of a referral, another set of clinicians, nurses, clerical workers, and insurers. If the patient is involved in litigation and his medical or mental health is in issue, the court will most likely order disclosure of his chart or file in response to a subpoena.

When a provider documents the results of substance abuse screening or assessment or flags an issue to be raised the next time he sees the client, he should use neutral notations or reminders that do not identify the problem as being substance-use-related. Following are three record-keeping systems that comply with the stringent Federal confidentiality regulations, protect clients' autonomy and privacy, and can be used in a wide variety of settings (TIP 16, *Alcohol- and Other-Drug Screening of Hospitalized Trauma Patients*, CSAT, 1995):

- The "minimalist" approach, which relies on the provider to enter only that information in

the chart that is required for accuracy and to use neutral terms wherever possible.

- The "rubber band" approach, which segregates substance abuse information in a separate "confidential" section in the chart. Information in this section would be shared with other providers only on a need-to-know basis, without being open to the view of every staff person who picked up the chart.
- The "separate location" approach, which keeps sensitive information separate from the rest of the client's chart. The other place might be a locked cabinet or other similarly secure area. A "gatekeeper" familiar with the provider's record-keeping system and the reasons for the extra security would be responsible for deciding when others—within or outside the office—will have access to this information. This approach provides, in effect, a stronger "rubber band" than that described in the second approach.[8]

The push toward computerization of medical records will complicate the problem of keeping sensitive information in medical records private. Currently, there is protection afforded by the cumbersome and inefficient way many, if not most, medical, mental health, and social service records make their way from one provider to another. When records are stored in computers, retrieval can be far more efficient. Computerized records may allow anyone with a disc and access to the computer in which the information is stored to instantly copy and carry away vast amounts of information without anyone's knowledge. Modems that allow communication about patients among different components of a managed care network extend the possibility of unauthorized access to anyone with a modem, the password(s), and the necessary software. The ease with which computerized information can be accessed can lead to "casual gossip" about a client, particularly one of importance in a community, making privacy difficult to preserve.

Communicating with others

One of the trickiest issues is whether and how providers of older adults health care should communicate with others about their clients' substance use problems. Communications with others concerned about the client may confirm the provider's judgment that the client has a substance use problem or may be useful in persuading a reluctant client that treatment is necessary.

Before a provider attempts to gather information from other sources or enlist help for a patient or client struggling with recovery, he should ask the older client's permission to do so. Speaking with relatives (including children), doctors, or other health and mental health professionals not only intrudes on the client's autonomy, it also poses a risk to her right to privacy. Gathering information (or responding to questions about a client's problems) from a spouse, child, or other provider can involve an explicit or implicit disclosure that the provider believes the client or patient has a substance use problem. And the provider making such a disclosure may be inadvertently stepping on a land mine.

Making inquiries or answering questions behind the client's back may seriously jeopardize the trust that has developed between the provider and the client and undermine his attempt to offer help. The professional who talks to the client's son and then confronts her with their joint conclusions runs the risk that he will damage his relationship with the client. Feeling she can no longer trust the provider and angry that he has shown little respect for her autonomy or privacy, the client may refuse to participate in any further discussions about her problems.

Dealing with questions of incapacity

Most older clients or patients are fully capable of comprehending the information and weighing the alternatives offered by a provider and making and articulating decisions. A small percentage of older patients or clients are clearly incapable of participating in a decision-making process. In such cases, the older person may have signed a health care proxy or may have a court-appointed guardian to make decisions in his stead.

The real difficulty arises when a provider is screening or assessing an older person whose mental capacity lies between those two extremes. The client or patient may have fluctuating capacity, with "good days" and "bad days" or periods of greater or lesser alertness depending upon the time of day. His condition may be transient or deteriorating. His diminished capacity may affect some parts of his ability to comprehend information but not others.

How can the provider determine whether the patient or client understands the information she is presenting, appreciates the implication of each alternative, and is able to make a "rational" decision, based on his own best interests? There is no easy answer to this question. One can, however, suggest several approaches.

Maximizing autonomy. The provider can help the patient or client who appears to have diminished capacity through a gradual information-gathering and decisionmaking process. Information the client needs should be presented in a way that allows the patient or client to absorb it gradually. The provider should clarify and restate information as necessary and may find it helpful to summarize the issues already covered at regular intervals. Each alternative and its possible consequences should be laid out and examined separately. Finally, the provider can help the client identify his values and link those values to the alternatives presented. By helping the patient or client narrow his focus and proceed step-by-step, the provider may be able to assure herself that the client, despite his diminished capacity, has understood the decision to be made and acted in his own best interest.

Enlisting the help of a health or mental health professional. If working with the patient or client in a process of gradual information-gathering and decision-making is not making headway, the provider can suggest that together they consult a health or mental health professional. Perhaps there is someone who has known the patient or client for a number of years who has a grasp of the client's history and better understanding of the obstacles to decision-making. Or, the provider may suggest a specialist who can help determine why the patient is having difficulty and whether he has the capacity to make this kind of decision.

Enlisting the help of family or close friends. Another approach is for the provider to suggest to the patient or client that they call in a family member or close friend who can help them organize the information and sort through the alternatives. Asking the client who he thinks would be helpful may win his endorsement of this approach.

When the client cannot grasp the information or come to a decision. If the provider's efforts to inform the patient or client and help him reach a decision are unsuccessful, she might seek his permission to consult a family member or close friend to discuss the problem. If the client consents, the provider should lay out her concerns for the family member or friend. It may be that the client has already planned for the possibility of his incapacity and has signed a durable power of attorney or a health care proxy.

Guardianship. A guardian* is a person appointed by a court to manage some or all aspects of another person's life. Anyone seeking

appointment of a guardian must show the court (1) that an individual is disabled in some way by disease, illness, or senility, and (2) that the disability prevents him from performing the tasks necessary to manage an area or areas of his life.

Each state handles guardianship proceedings differently, but some principles apply across the board: Guardianship is not an all-or-nothing state. Courts generally require that the person seeking appointment of a guardian prove the individual's incapacity in a variety of tasks or areas. Courts may apply different standards to different life tasks—managing money, managing a household, making health care decisions, entering contracts. A person may be found incompetent to make contracts and manage money but not to make his own health care decisions (or vice versa), and the guardianship will be limited accordingly.

Guardianship diminishes the older adult's autonomy and is an expensive process. It should, therefore, be considered only as a last resort.

Making referrals to substance abuse treatment programs

The provider has persuaded the patient or client to try outpatient treatment and knows the director of an excellent program in the immediate area. Rather than simply picking up the phone and letting the director know she has referred the patient, she should consult the patient about the specific treatment facility. Though it may seem that consent to treatment is the same as consent to referral to a particular facility, it takes very little time to get the patient's consent, demonstrates respect for the client or patient, and protects the provider if, say, the treatment program's director is a relative or has some other connection to the client.

Communications with insurers, HMOs, and other third-party payers

The structure of health, mental health, and ancillary social service care for older adults is changing rapidly. Of course, older adults are covered by Medicare, but many have supplementary insurance or have joined HMOs or are entitled to government-sponsored social services because of particular medical, physical, or mental disabilities. How should the professional provider communicate with these different types of entities?

Traditional health insurance programs offering reimbursement to patients for health care expenditures typically require patients to sign claim forms containing language consenting to the release of information about their care. The patient's signature authorizes the practitioner to release such information. Although HMOs do not require patients to submit claim forms, both practitioners and patients understand that the HMO or MCO can review clinical records at any time and may well review records if it has questions about the patient's or client's care.

Should the provider rely on the patient's signed consent on the health insurance form or the HMO contract and release what she has in her chart (or a neutral version of that information)? Or should she consult the patient?

The better practice is for the provider to frankly discuss with the patient what information she intends to disclose, the alternatives open to the client (disclosure and refusal to disclose), and the likely consequences of those alternatives. Will the information the provider sends explicitly or implicitly reveal the nature of the patient's problem? Does the client's chart contain a substance abuse diagnosis? Once again, the provider confronts the question of how such information should be recorded. Has she balanced the need for

accuracy with discretion and a respect for patients' privacy? Finally, even if the chart or file contains explicit information about the client's substance use problem, can the provider characterize the information and her diagnosis in more neutral terms when releasing information to the third-party payer?

Once the client understands what kind and amount of information the provider intends to send a third-party payer, he can decide whether to agree to the disclosure. The provider should explain that if she refuses to comply with the third-party payer's request for information, it is likely that at least some related services will not be covered. If the client expresses concern, she should not mislead him, but confirm that once a third-party payer learns he has had a substance use problem, he could and may lose either some of his insurance coverage or parts of other entitlements and be unable to obtain other coverage.[10]

The final decision should be the client's. He may well decide to pay out of pocket. Or he may agree to the limited disclosure and ask the provider to inform him if more information is requested.

As managed care becomes more prevalent throughout the country, medical and mental health providers are finding that third-party payers demand more and more information about patients and about the treatment provided to those patients in order to monitor care and contain costs. Providers need to be sensitive about the amount and kind of information they disclose because there is a risk that this information may be used to deny future benefits to the client. Chart notes may also contain detailed and very personal information about family life that may be unnecessary for a third-party payer to review in order to determine whether and what kind of treatment should be covered.

As in so many other areas involving patients' privacy, it is best to follow two simple rules: First, keep notations and documentation as neutral as possible while maintaining professionally acceptable standards of accuracy. Second, consult the client and let the client decide whether to agree to the disclosure.

Communicating with the legal system

If a doctor, psychologist, social worker, or other provider gets a call from a lawyer asking about a patient or client, or a visit from a law enforcement officer asking to see records, or a subpoena to testify or produce medical records, what should he or she do? As in other matters of privacy and confidentiality, (1) consult the patient, (2) use common sense, and (3) as a last resort, consult State law (or a lawyer familiar with State law).

Responding to lawyers' inquiries. Say a lawyer calls and asks about Emma Bailey's medical, mental health, or social service history or treatment. As a first approach to the question, the provider could tell the lawyer, "I don't know that I have a client with that name. I'd have to check my records"[11] or tell the caller that he must consult with his client before having a conversation about her: "I'm sure you understand that I am professionally obligated to speak with Emma Bailey before I speak with you." It will be hard for any lawyer to disagree with this statement.

The provider should then ask the client if she knows what information the caller is seeking and whether the client wants him to disclose that or any other information. He should leave the conversation with a clear understanding of the client's instructions—whether he should disclose the information, and if so, how much and what kind. It may be that the lawyer is representing the client in a case and the client wants the provider to share all the information

he has. On the other hand, the lawyer may represent someone with whom the client has a dispute. There is nothing wrong with refusing to answer a lawyer's questions.[12]

If the lawyer represents the client and the client asks the provider to share all information, the provider can speak freely with the lawyer. However, if the provider is answering the questions of a lawyer who does *not* represent the client (but the client has consented to the disclosure of *some* information), the provider should listen carefully to each question, choose his words with care, limit each answer to the question asked, and take care not to volunteer information not called for.

Visits by law enforcement. A police officer, detective, or probation officer who asks a provider to disclose medical, mental health, or social service information about a client or a client's case records can usually be handled in a similar manner.[13] The provider can safely tell the officer, as he might a lawyer, "I'm sure you understand that I am professionally obligated to speak with my patient before I speak to you."[14]

The provider should then speak with the client to find out whether she knows the subject of the officer's inquiry, whether she wants the provider to disclose information and if so, how much and what kind. The caretaker might end the conversation by asking whether there are any particular areas the client would prefer he not discuss with the officer.

When a law enforcement officer comes armed with a search warrant, the answer is different. In this case, the provider has no choice but to hand over the records listed in the warrant.

Responding to subpoenas. Subpoenas come in two varieties. One is an order requiring a person to testify, either at a deposition out of court or at a trial. The other—known as a subpoena duces tecum—requires a person to appear with the records listed in the subpoena. Depending on the State, a subpoena can be signed by a lawyer or a judge. Unfortunately, it cannot be ignored.

In this instance, the provider's first step should be to call Emma Bailey—the client about whom he is asked to testify or whose records are sought—and ask what the subpoena is about. It may be that the subpoena has been issued by or on behalf of Emma's lawyer, with Emma's consent. However, it is equally possible that the subpoena has been issued by or on behalf of the lawyer for an adverse party. If that is the case, the provider's best option is to consult with Emma's lawyer to find out whether the lawyer will object—ask the court to "quash" the subpoena—or whether the provider should simply get the client's consent to testify or turn over her records.[15] An objection can be based on a number of grounds and can be raised by any party as well as by the person whose medical information is sought. If the provider is covered by a State statutory privilege, he may be able to assert the client's privilege for her.

Conclusion

It is essential for those who work with older adults to respect their clients' autonomy and rights to privacy and confidentiality if they are to be effective in screening and assessing clients for substance use disorders and persuading them to cut down their use or enter treatment. In most situations, providers can follow these simple rules: (1) consult the client, (2) let the client decide, and (3) be sensitive to how information is recorded or disclosed. It is only as a last resort that the provider will have to consult State law or a lawyer.

Endnotes

[1] For many years, there was confusion about whether general medical care settings such as primary care clinics or hospital emergency rooms were subject to the Federal law and regulations because they provided substance abuse diagnosis, referral, and treatment as part of their services. In 1995, DHHS revised the definition of the kinds of "programs" subject to the regulations that made it clear that *the regulations do not generally apply to a general medical care facility* unless that facility (or person) holds itself out as providing, and provides, alcohol or drug abuse diagnosis, treatment, or referral for treatment . . . (42 CFR§ 2.11).
The full text of § 2.11 now reads:

Program means:

(a) An individual or entity (other than a general medical care facility) who holds itself out as providing, and provides, alcohol or drug abuse diagnosis, treatment, or referral for treatment; or

(b) An identified unit within a general medical facility which holds itself out as providing and provides, alcohol or drug abuse diagnosis, treatment, or referral for treatment; or

(c) Medical personnel or other staff in a general medical care facility whose primary function is the provision of alcohol or drug abuse diagnosis, treatment, or referral for treatment and who are identified as such providers. (See § 2.12(e)(1) for examples.)
60 Federal Register 22,297 (May 5, 1995).

[2] The regulations provide that "federally assisted" programs include:

- Programs run directly by or under contract for the Federal government;
- Programs carried out under a Federal license, certification, registration, or other authorization, including certification under the Medicare Program, authorization to conduct a methadone maintenance treatment program, or registration to dispense a drug that is regulated by the Controlled Substances Act to treat alcohol or drug abuse;
- Programs supported by any federal department or agency of the United States, even when the federal support does not directly pay for the alcohol or drug abuse diagnosis, treatment, or referral activities;
- Programs conducted by State or local government units that are supported by Federal funding that could be (but is not necessarily) spent for the substance abuse treatment program;
- Tax-exempt programs.

42 C.F.R.§ 2.12(b).

[3] For a full explanation of the Federal law and regulations, see TIP 8, *Intensive Outpatient Treatment for Alcohol and Other Drug Abuse* (CSAT, 1994) and TAP 13, *Confidentiality of Patient Records for Alcohol and Other Drug Treatment* (CSAT, 1994).

[4] *Luhndorff v. The Superior Court of Tulare County*, 166 CA 3d 485, 212 Cal. Rptr. 516 (5th District, 1985). Interestingly, *Luhndorff* was a criminal case in which the prosecution sought the records of an unlicensed social worker who interviewed the defendant, diagnosed his problem, determined the appropriate treatment, and treated him for 3 months. The social worker was working under a licensed individual's supervision. The defendant thought the social worker was a psychiatrist.

[5] Section 451 of the California Evidence Code codifies the doctor-patient privilege. See *Grosslight v. Superior Court of Los Angeles*, 42 CA 3d 502, 140 Cal. Rptr. 278 (1977), in which the court held that information communicated by

the parents of a minor psychiatric patient to her doctor and his secretary was privileged, even though the parents were being sued by someone the child injured on the theory that the parents knew their child was a danger to others.

[6] Note that the breadth of the protection may vary according to the clinician's profession.

[7] *Grosslight v. Superior Court of Los Angeles*, 72 Cal. App. 3d 502, 140 Cal. Rptr. 278 (1977), interpreting Section 451 of the California Evidence Code (see footnote 5).

[8] The Consensus Panel for TIP 16 noted: "Physical separation of clinical information is not unusual. Patient charts from past years are generally kept in a separate location. Physicians routinely request charts to be sent to them from this location so that they can review historical clinical information about the patient. In addition, nurses are quite accustomed to keeping some medications locked up and accessible only to designated personnel." (TIP 16, CSAT, 1995, p. 76)

[9] In some States, a guardian is referred to as a fiduciary, conservator, or committee. The person who has a guardian is generally called a "ward" or an "incapacitated person."

[10] Some States prohibit insurance companies from discriminating against individuals who have received substance abuse treatment; however, these kinds of discriminatory practices continue. Insurance companies routinely share information about applicants for life and disability insurance through the Medical Information Bureau—a data bank maintained by a private organization and supported by the industry.

[11] In fact, in some States, depending on the provider's profession, the identity of patients or clients as well as their records are protected. Therefore, professionals should find out whether disclosing a patient's name or acknowledging that the individual about whom the lawyer is inquiring is a client would be considered a violation of the client's right to confidentiality.

[12] A firm, but polite, tone is best. If confronted by what could be characterized as "stonewalling," a lawyer may be tempted to subpoena the information he is asking for, and more. The clinician will not want to provoke the lawyer into taking action that will harm the patient.

[13] The only exception to this advice would be if the provider knew the patient was a fugitive being sought by law enforcement. In that case, in some States, a refusal to assist or give officers information might be a criminal offense.

[14] As noted above, in those States where the identity of clients or patients as well as their medical or mental health records are protected, the professional should give a noncommittal response, such as "I'll have to check my records to see whether I have such a patient."

[15] In most instances, the provider is not legally required to notify the client or get his consent to release records that have been subpoenaed. However, notifying the client shows respect for his autonomy and privacy and gives him an opportunity to object to the subpoena.

Appendix B
Tools

Appendix B contains the following items:

- The Alcohol Use Disorders Identification Test (AUDIT)
- Index of Activities of Daily Living (Index of ADLs)
- Instrumental Activities of Daily Living (IADL) Scale
- Geriatric Depression Scale (GDS) Short Form
- Center for Epidemiologic Studies—Depression Scale (CES-D)
- Health Screening Survey (HSS), Revised.

The Alcohol Use Disorders Identification Test (AUDIT)

The following guidelines, questions, and scoring instructions are excerpted from Babor, T.F.; de la Fuente, J.R.; Saunders, J.; and Grant, M. AUDIT: The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Health Care. Geneva, Switzerland: World Health Organization, 1992.

How To Use AUDIT

Screening with AUDIT can be conducted in a variety of primary care settings by persons who have different kinds of training and professional backgrounds. The core AUDIT is designed to be used as a brief structured interview or self-report survey that can easily be incorporated into a general health interview, lifestyle questionnaire, or medical history. When presented in this context by a concerned and interested interviewer, few patients will be offended by the questions. The experience of the WHO collaborating investigators (Saunders and Aasland, 1987) indicated that AUDIT questions were answered accurately regardless of cultural background, age, or gender. In fact, many patients who drank heavily were pleased to find that a health worker was interested in their use of alcohol and the problems associated with it.

In some patients, the AUDIT questions may not be answered accurately because they refer specifically to alcohol use and problems. Some patients may be reluctant to confront their alcohol use or to admit that it is causing them harm. Individuals who feel threatened by revealing this information to a health worker, who are intoxicated at the time of the interview, or who have certain kinds of mental impairment may give inaccurate responses. Patients tend to answer most accurately when

- The interviewer is friendly and nonthreatening
- The purpose of the questions is clearly related to a diagnosis of their health status
- The patient is alcohol- and drug-free at the time of the screening
- The information is considered confidential
- The questions are easy to understand

Health workers should try to establish these conditions before AUDIT is given. When these conditions are not present, the Clinical Screening Instrument following the AUDIT questionnaire may be more useful. Alternatively, health workers may also use AUDIT to guide an interview with a concerned friend, spouse, or family member. In some settings (such as waiting rooms), AUDIT may be administered as a self-report questionnaire, with instructions for the patient to discuss the meaning of the results with the primary care worker. In addition to these general considerations, the following interviewing techniques should be used:

- Try to interview patients under the best possible circumstances. For patients requiring emergency treatment or who are severely impaired, it is best to wait until their condition has stabilized and they have become accustomed to the health setting where the interview is to take place.
- Look for signs of alcohol or drug intoxication. Patients who have alcohol on their breath or who appear intoxicated may be unreliable respondents. Consider conducting the interview at a later time. If this is not possible, make note of these findings on the patient's record.
- If AUDIT is embedded, as recommended, in a longer health interview, then a transitional statement will be needed when the AUDIT questions are asked. The best way to introduce the AUDIT questions

is to give the patient a general idea of the content of the questions, the purpose for asking them, and the need for accurate answers. The following is an illustrative introduction: "Now I am going to ask you some questions about your use of alcoholic beverages during the past year. Because alcohol use can affect many areas of health (and may interfere with certain medications), it is important for us to know how much you usually drink and whether you have experienced any problems with your drinking. Please try to be as honest and as accurate as you can be." This statement should be followed by a description of the types of alcoholic beverages typically consumed in the population to which the patient belongs (e.g., "By alcoholic beverages we mean your use of wine, beer, vodka, sherry, and so on."). If necessary, include a description of beverages that may not be considered alcoholic (e.g., cider, low alcohol beer).

- It is important to read the questions as written and in the order indicated. By following the exact wording, better comparability will be obtained between your results and those obtained by other interviewers.
- Most of the questions in AUDIT are phrased in terms of "how often" symptoms occur. It is useful to offer the patient several examples of the response categories (for example, "Never," "Several times a month," "Daily") to suggest how he might answer. When he has responded, it is useful to probe during the initial questions to be sure that the patient has selected the most accurate response (for example, "You say you drink several times a week. Is this just on weekends or do you drink more or less every day?"). If responses are ambiguous or evasive, continue asking for clarification by repeating the question and the response options, asking the patient to choose the best one. At times, answers are difficult to record because the patient may not drink on a regular basis. For example, if the patient was drinking intensively for the month prior to an accident, but not before or since, then it will be difficult to characterize the "typical" drinking sought by the question. In these cases it is best to record the amount of drinking and related symptoms for the heaviest drinking period of the past year, making note of the fact that this may be atypical or transitory for that individual.

Record answers carefully, using the comments section of the interview brochure to explain any special circumstances, additional information, or clinical inferences. Often patients will provide the interviewer with useful comments about their drinking that can be valuable in the interpretation of the total AUDIT score.

The AUDIT Questionnaire

Circle the number that comes closest to the patient's answer.

1. **How often do you have a drink containing alcohol?**

(0) Never	(1) Monthly or less	(2) Two to four times a month	(3) Two to three times a week	(4) Four or more times a week

2. **How many drinks containing alcohol do you have on a typical day when you are drinking? [Code number of standard drinks.[1]]**

(0) 1 or 2	(1) 3 or 4	(2) 5 or 6	(3) 7 to 9	(4) 10 or more

3. **How often do you have six or more drinks on one occasion?**

(0) Never	(1) Less than monthly	(2) Monthly	(3) Weekly	(4) Daily or almost daily

4. **How often during the last year have you found that you were not able to stop drinking once you had started?**

(0) Never	(1) Less than monthly	(2) Monthly	(3) Weekly	(4) Daily or almost daily

5. **How often during the last year have you failed to do what was normally expected from you because of drinking?**

(0) Never	(1) Less than monthly	(2) Monthly	(3) Weekly	(4) Daily or almost daily

6. **How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?**

(0) Never	(1) Less than monthly	(2) Monthly	(3) Weekly	(4) Daily or almost daily

7. **How often during the last year have you had a feeling of guilt or remorse after drinking?**

(0) Never	(1) Less than monthly	(2) Monthly	(3) Weekly	(4) Daily or almost daily

8. **How often during the last year have you been unable to remember what happened the night before because you had been drinking?**

(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily

9. **Have you or someone else been injured as a result of your drinking?**

(0) No (2) Yes, but not in the last year (4) Yes, during the last year

10. **Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?**

(0) No (2) Yes, but not in the last year (4) Yes, during the last year

[1] In determining the response categories it has been assumed that one *drink* contains 10 g alcohol. In countries where the alcohol content of a standard drink differs by more than 25 percent from 10 g, the response category should be modified accordingly.

Record sum of individual item scores here. _____

Procedure for scoring AUDIT

Questions 1–8 are scored 0, 1, 2, 3, or 4. Questions 9 and 10 are scored 0, 2, or 4 only. The response is as follows:

	0	1	2	3	4
Question 1	Never	Monthly or less	Two to four times per month	Two to three times per week	Four or more times per week
Question 2	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
Questions 3–8	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
Questions 9–10	No		Yes, but not in the last year		Yes, during the last year

The minimum score (for nondrinkers) is 0 and the maximum possible score is 40. A score of 8 or more indicates a strong likelihood of hazardous or harmful alcohol consumption.

AUDIT "Clinical" Questions and Procedure

Trauma history

1. Have you injured your head since your 18th birthday?

   (3) Yes (0) No

2. Have you broken any bones since your 18th birthday?

   (3) Yes (0) No

Clinical examination

1. Conjunctival injections

   (0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

2. Abnormal skin vascularization

   (0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

3. Hand tremor

   (0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

4. Tongue tremor

   (0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

5. Hepatomegaly

   (0) NOT PRESENT (1) MILD (2) MODERATE (3) SEVERE

GGT Values[1]		
	Lower normal	(0–30 IU/1) = (0)
	Upper normal	(30–50 IU/1) = (1)
	Abnormal	(50 IU/1) = (3)

[1]These values may change with laboratory methods, and standards may vary with sex and age of the drinker.

Record sum of individual item scores here. _____

Scoring and Interpretation of AUDIT

As indicated by the AUDIT questions, each item is scored by checking the response category that comes closest to the patient's answer.

On the basis of evidence from the validation study (Saunders et al., in press), two cutoff points are suggested, depending on the purpose of the screening program or the nature of the research project. A score of 8 or more produces the highest sensitivity, while a score of 10 or more results in higher specificity. In general, high scores on the first three items in the absence of elevated scores on the remaining items suggest *hazardous* alcohol use. Elevated scores on items 4 through 6 imply the presence or emergence of *alcohol dependence*. High scores on the remaining items suggest *harmful* alcohol use. As discussed in the following section on diagnosis, each of these areas of alcohol-related problems implies different types of management.

The Clinical Screening Instrument is considered to be elevated when the total score is 5 or greater. Here, too, the examiner should give careful consideration to the different meanings attributed to alcohol-related trauma, physical signs, and the elevated liver enzyme. It should be noted that false positives can occur when the individual is accident prone, uses drugs (such as barbiturates) that induce GGT, or has hand tremor because of nervousness, neurological disorder, or nicotine dependence.

References

Saunders, J.B., and Aasland, O.G. WHO Collaborative Project on the Identification and Treatment of Persons with Harmful Alcohol Consumption. Report on Phase I: Development of a Screening Instrument. Geneva, Switzerland: World Health Organization, 1987.

Saunders, J.B.; Aasland, O.G.; Babor, T.F.; de la Fuente, J.R.; and Grant, M. WHO collaborative project on early detection of persons with harmful alcohol consumption. II. Development of the screening instrument "AUDIT." *British Journal of Addictions*, in press.

Index of Activities of Daily Living (ADLs)

Index of Independence in Activities of Daily Living

The Index of Independence in Activities of Daily Living is based on an evaluation of the functional independence or dependence of patients in bathing, dressing, going to the toilet, transferring, continence, and feeding. Specific definitions of functional independence and dependence appear below the index. (These definitions can be used to convert the data recorded in the evaluation form in the next section into an Index of ADL grade.)

A—Independent in feeding, continence, transferring, going to the toilet, dressing, and bathing.
B—Independent in all but one of these functions.
C—Independent in all but bathing and one additional function.
D—Independent in all but bathing, dressing, and one additional function.
E—Independent in all but bathing, dressing, going to the toilet, and one additional function.
F—Independent in all but bathing, dressing, going to toilet, transferring, and one additional function.
G—Dependent in all six functions.
Other—Dependent in at least two functions, but not classifiable as C, D, E, or F.

Independence means without supervision, direction, or active personal assistance, except as specifically noted below. This is based on actual status and not on ability. A patient who refuses to perform a function is considered as not performing the function, even though he is deemed able.

Bathing (Sponge, Shower, or Tub)
Independent: assistance only in bathing a single part (as back or disabled extremity) or bathes self completely
Dependent: assistance in bathing more than one part of body; assistance in getting in or out of tub or does not bathe self

Dressing
Independent: gets clothes from closets and drawers; puts on clothes, outer garments, braces; manages fasteners; act of tying shoes is excluded
Dependent: does not dress self or remains partly undressed

Going to Toilet
Independent: gets to toilet; gets on and off toilet; arranges clothes; cleans organs of excretion; (may manage own bedpan used at night only and may or may not be using mechanical supports)
Dependent: uses bedpan or commode or receives assistance in getting to and using toilet

Transfer
Independent: moves in and out of bed independently and moves in and out of chair independently (may or may not be using mechanical supports)
Dependent: assistance in moving in or out of bed and/or chair; does not perform one or more transfers

Continence
Independent: urination and defecation entirely self-controlled
Dependent: partial or total incontinence in urination or defecation, partial or total control by enemas, catheters, or regulated use of urinals and/or bedpans

Feeding
Independent: gets food from plate or its equivalent into mouth; (precutting of meat and preparation of food, as buttering bread, are excluded from evaluation)
Dependent: assistance in act of feeding (see above); does not eat at all or parental feeding

Evaluation Form

Name..... Day of Evaluation.....

For each area of functioning listed below, check description that applies. (The word "assistance" means supervision, direction, or personal assistance.)

Bathing—either sponge bath, tub bath, or shower.

☐	☐	☐
Receives no assistance (gets in and out of tub by self if tub is usual means of bathing)	Receives assistance in bathing only one part of the body (such as back or a leg)	Receives assistance in bathing more than one part of the body (or not bathed)

Dressing—gets clothes from closets and drawers—including underclothes, outer garments, and using fasteners (including braces if worn)

☐	☐	☐
Gets clothes and gets completely dressed without assistance	Gets clothes and gets dressed without assistance except for assistance in tying shoes	Receives assistance in getting clothes or in getting dressed, or stays partially or completely undressed

Toileting—going to the "toilet room" for bowel and urine elimination, cleaning self after elimination, and arranging clothes

☐	☐	☐
Goes to "toilet room," cleans self, and arranges clothes without assistance (may use object for support such as cane, walker, or wheelchair and may manage night bedpan or commode emptying same in morning)	Receives assistance in going to "toilet room" or in cleansing self or in arranging clothes after elimination or in use of night bedpan or commode	Doesn't go to room termed "toilet" for the elimination process

Transfer—

☐	☐	☐
Moves in and out of bed as well as in and out of chair without assistance (may be using object for support such as cane or walker)	Moves in and out of bed or chair with assistance	Doesn't get out of bed

Continence—

☐	☐	☐
Controls urination and bowel movement completely by self	Has occasional "accidents"	Supervision helps keep urine or bowel control; catheter is used, or is incontinent

Feeding—

☐	☐	☐
Feeds self without assistance	Feeds self except for getting assistance in cutting meat or buttering bread	Receives assistance in feeding or is fed partly or completely by using tubes or intravenous fluids

After filling out the form, convert the data collected into an ADL grade by using the definitions provided in the introductory section.

Source: Katz, S.; Ford, A.B.; Moskowitz, R.W.; Jackson, B.A.; and Jaffe, M.W. Studies of Illness in the Aged. The Index of ADL: A standardized measure of biological and psychosocial function. *Journal of the American Medical Association* 185:914–919, 1963.

References

Katz, S.; Downs, T.D.; Cash, H.R.; and Grotz, R.C. Progress in development of the Index of ADL. *Gerontologist* 10(1):20-30, 1970.

Katz, S., and Akpom, C.A. Index of ADL. *Medical Care* 14(suppl. 5):116-118. 1976.

Instrumental Activities of Daily Living (IADL) Scale

Self-Rated Version Extracted From the Multilevel Assessment Instrument (MAI)

1. Can you use the telephone:

Without help,	3
With some help, or	2
Are you completely unable to use the telephone?	1

2. Can you get to places out of walking distance:

Without help,	3
With some help, or	2
Are you completely unable to travel unless special arrangements are made?	1

3. Can you go shopping for groceries:

Without help,	3
With some help, or	2
Are you completely unable to do any shopping?	1

4. Can you prepare your own meals:

Without help,	3
With some help, or	2
Are you completely unable to prepare any meals?	1

5. Can you do your own housework:

Without help,	3
With some help, or	2
Are you completely unable to do any housework?	1

6. Can you do your own handyman work:

Without help,	3
With some help, or	2
Are you completely unable to do any handyman work?	1

7. Can you do your own laundry:

Without help,	3
With some help, or	2
Are you completely unable to do any laundry at all?	1

8a. Do you take any medications or use any medications?

(ASK Q. 8b) Yes	1
(ASK Q. 8c) No	2

8b. (ASK IF SUBJECT TAKES MEDICINE NOW)

Do you take your own medicine: (CHECK BELOW)

8c. (ASK IF SUBJECT DOES NOT TAKE MEDICINE NOW)

If you had to take medicine, can you do it: (CHECK BELOW)

Without help (in the right doses at the right time),	3
With some help (take medicine if someone prepares it for you and/or reminds you to take it), or	2
(Are you/would you be) completely unable to take your own medicines?	1

9. Can you manage your own money:

Without help,	3
With some help, or	2
Are you completely unable to handle money?	1

Note on Scoring:

If fewer than 5 items are valid, then scoring cannot be done reliably.

Source: Lawton, M.P.; Moss, M.; Fulcomer, M.; and Kleban, M.H. A research and service-oriented Multilevel Assessment Instrument. *Journal of Gerontology* 37:91–99, 1982.

References

Lawton, M.P. Scales to measure competence in everyday activities. *Psychopharmacology Bulletin* 24(4):609–614, 1988.

Lawton, M.P., and Brody, E.M. Assessment of older people: Self-maintaining and instrumental activities of daily living. *Gerontologist* 9:179–186, 1969.

Reproduced with permission from M. Powell Lawton, Ph.D.

Geriatric Depression Scale (GDS) Short Form

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life? YES/**NO**
2. Have you dropped many of your activities and interests? **YES**/NO
3. Do you feel that your life is empty? **YES**/NO
4. Do you often get bored? **YES**/NO
5. Are you in good spirits most of the time? YES/**NO**
6. Are you afraid that something bad is going to happen to you? **YES**/NO
7. Do you feel happy most of the time? YES/**NO**
8. Do you often feel helpless? **YES**/NO
9. Do you prefer to stay at home, rather than going out and doing new things? **YES**/NO
10. Do you feel you have more problems with memory than most? **YES**/NO
11. Do you think it is wonderful to be alive now? YES/**NO**
12. Do you feel pretty worthless the way you are now? **YES**/NO
13. Do you feel full of energy? YES/**NO**
14. Do you feel that your situation is hopeless? **YES**/NO
15. Do you think that most people are better off than you are? **YES**/NO

Answers in bold indicate depression, and each answer counts as one point. For clinical purposes, a score greater than 5 suggests depression and warrants a followup interview. Scores greater than 10 are almost always depression.

Source: Sheikh, J.I., and Yesavage, J.A. Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist* 5(1&2):165–173, 1986.

References

Brink, T.L.; Yesavage, J.A.; Lum, O.; Heersema, P.; Adey, M.B.; and Rose, T.L. Screening tests for geriatric depression. *Clinical Gerontologist* 1:37–44, 1982.

Yesavage, J.A.; Brink, T.L.; Rose, T.L.; Lum, O.; Huang, V.; Adey, M.B.; and Leirer, V.O. Development and validation of a geriatric depression screening scale: A preliminary report. *Journal of Psychiatric Research* 17:37–49, 1983.

The Center for Epidemiologic Studies Depression Scale (CES-D)

For the 20 items below, circle the number next to each item that best reflects how frequently the indicated event was experienced in the past 7 days.

	Rarely or none of the time (Less than 1 Day)	Some or a little of the time (1–2 days)	Occasionally or a moderate amount of time (3–4 Days)	Most or all of the time (5–7 Days)
DURING THE PAST WEEK:				
1. I was bothered by things that usually don't bother me.	0	1	2	3
2. I did not feel like eating: my appetite was poor.	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family or friends.	0	1	2	3
4. I felt that I was just as good as other people.	0	1	2	3
5. I had trouble keeping my mind on what I was doing.	0	1	2	3
6. I felt depressed.	0	1	2	3
7. I felt that everything I did was an effort.	0	1	2	3
8. I felt hopeful about the future.	0	1	2	3
9. I thought my life had been a failure.	0	1	2	3
10. I felt fearful.	0	1	2	3
11. My sleep was restless.	0	1	2	3
12. I was happy.	0	1	2	3
13. I talked less than usual.	0	1	2	3
14. I felt lonely.	0	1	2	3
15. People were unfriendly.	0	1	2	3
16. I enjoyed life.	0	1	2	3
17. I had crying spells.	0	1	2	3
18. I felt sad.	0	1	2	3
19. I felt that people disliked me.	0	1	2	3
20. I could not get "going."	0	1	2	3

Scoring: Since items 4, 8, 12, and 16 reflect positive experiences rather than negative ones, the scale should be reversed on these items so that 0 = 3, 1 = 2, 2 = 1, and 3 = 0. To determine the "depression score," add together the number for each answer. The score will be somewhere in the range of 0 to 60. A score of 16 or greater indicates that some depression may have been experienced in the past week.

Source: Radloff, L.S. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement* 1(3):385–401, 1977.

Health Screening Survey (HSS), Revised

Check the appropriate answer

1. **In the last three months**, have you been dieting to lose weight?

   ___YES ___NO

   IF YES: How many pounds have you managed to lose?

   ___0 ___1–3 ___4–7 ___8 or more

---

2. **In the last three months**, have you performed physical activity or exercise in your leisure time at least 20 minutes without stopping, enough to make you breathe hard and/or sweat?

   ___YES ___NO

   IF YES: On average, how many days per week have you been exercising

   ___1–2 ___3–4 ___5–6 ___Every day

---

3. **In the last three months**, have you been smoking cigarettes at all?

   ___YES ___NO

   IF YES: On average, how many cigarettes have you been smoking each day?

   ___1–9 ___10–19 ___20–29 ___30 or more

---

4. **In the last three months**, have you been drinking alcoholic drinks at all (e.g., beer, wine, sherry, vermouth, or hard liquor)?

   ___YES ___NO

   IF NO, go to question 5.

   IF YES, ANSWER 4a through 4c.

4a. On average, how many days per week have you been drinking **beer or wine coolers**?

___None ___1–2 ___3–4 ___5–6 ___Every day

On a day when you have had wine, sherry, or vermouth to drink, **how many glasses, bottles, or cans** have you been drinking?

___1–2 ___3–4 ___5–8 ___9–14 ___15 or more

AND

4b. On average how many **days per week** have you been drinking **wine, sherry, or vermouth**?

___None ___1–2 ___3–4 ___5–6 ___Every day

On a day when you have had wine, sherry, or vermouth to drink, **how many glasses** have you been drinking?

___1–2 ___3–4 ___5–8 ___9–14 ___15 or more

AND

156 BEST COPY AVAILABLE

4c. On average how many **days per week** have you been drinking **liquor** (gin, vodka, rum, brandy, whiskey, etc.)?

___None ___1–2 ___3–4 ___5–6 ___Every day

On a day when you have had liquor to drink, **how many single shots** have you been drinking?

___1–2 ___3–4 ___5–8 ___9–14 ___15 or more

---

5. In the last three months have you felt you should:

a. *lose some weight*	___No	___Sometimes	___Quite Often	___Very Often
b. *cut down or stop smoking*	___No	___Sometimes	___Quite Often	___Very Often
c. *cut down or stop drinking*	___No	___Sometimes	___Quite Often	___Very Often
d. *do more to keep fit*	___No	___Sometimes	___Quite Often	___Very Often

---

6. In the last three months has anyone annoyed you or got on your nerves by telling you to:

a. *change your weight*	___No	___Sometimes	___Quite Often	___Very Often
b. *cut down or stop smoking*	___No	___Sometimes	___Quite Often	___Very Often
c. *cut down or stop drinking*	___No	___Sometimes	___Quite Often	___Very Often
d. *do more to keep fit*	___No	___Sometimes	___Quite Often	___Very Often

---

7. In the last three months, have you felt guilty or bad about:

a. *your weight*	___No	___Sometimes	___Quite Often	___Very Often
b. *how much you smoke*	___No	___Sometimes	___Quite Often	___Very Often
c. *how much you drink*	___No	___Sometimes	___Quite Often	___Very Often
d. *how unfit you are*	___No	___Sometimes	___Quite Often	___Very Often

---

8. In the last three months, have you been waking up wanting to:

a. *exercise to keep fit*	___No	___Sometimes	___Quite Often	___Very Often
b. *smoke a cigarette*	___No	___Sometimes	___Quite Often	___Very Often
c. *have an alcoholic drink*	___No	___Sometimes	___Quite Often	___Very Often
d. *have something to eat*	___No	___Sometimes	___Quite Often	___Very Often

---

9. Now that you have completed this form, do you think you **currently** have:

a. *a weight problem*	___Definitely	___Probably	___No	___Don't Know
b. *a smoking problem*	___Definitely	___Probably	___No	___Don't Know
c. *a drinking problem*	___Definitely	___Probably	___No	___Don't Know
d. *a fitness problem*	___Definitely	___Probably	___No	___Don't Know

---

10. Thinking back, would you say at any time in the **past** you had:

a. *a weight problem*	___Definitely	___Probably	___No	___Don't Know
b. *a smoking problem*	___Definitely	___Probably	___No	___Don't Know
c. *a drinking problem*	___Definitely	___Probably	___No	___Don't Know
d. *a fitness problem*	___Definitely	___Probably	___No	___Don't Know

---

Scoring: The HSS contains four subscales: one measuring amount of alcohol consumption (question 4 a, b, c; Kristenson and Trell, 1982), the CAGE questionnaire (questions 5–8; Mayfield et al., 1974), one for self-perception of current problem with alcohol (question 9), and one for self-perception of past problem with alcohol (question 10). Consumption of 20 or more drinks per week, two or more positive responses to the four CAGE questions, self-perception of a current problem with alcohol use, *or* self-perception of a past problem with alcohol use indicates problem drinking.

Source: Fleming, M.F., and Barry, K.L. A three-sample test of a masked alcohol screening questionnaire. *Alcohol and Alcoholism* 26(1):81–91, 1991.

References

Kristenson, H., and Trell, E. Indicators of alcohol consumption: Comparisons between a questionnaire (Mm-MAST), interviews, and serum γ-glutamyl transferase (GGT) in a health survey of middle-aged males. *British Journal of Addiction* 77, 297–304, 1982.

Mayfield, D.; McLeod, G.; and Hall, P. The CAGE questionnaire: Validation of a new alcoholism screening instrument. *American Journal of Psychiatry* 131:1121–1128, 1974.

Reproduced with permission.

Appendix C
Bibliography

Adams, W.L.; Barry, K.L.; and Fleming, M.F. Screening for problem drinking in older primary care patients. *Journal of the American Medical Association* 276(24):1964–1967, 1996.

Adams, W.L.; Magruder-Habib, K.; Trued, S.; and Broome, H.L. Alcohol abuse in elderly emergency department patients. *Journal of the American Geriatric Society* 40:1236–1240, 1992.

Adams, W.L.; Yuan, Z.; Barboriak, J.J.; and Rimm, A.A. Alcohol-related hospitalizations of elderly people: Prevalence and geographic location in the United States. *Journal of the American Medical Association* 270(10):1222–1225, 1993.

Administration on Aging and Staff of the U.S. Senate Special Committee on Aging. *Aging America: Trends and Projections*. Washington, DC: Administration on Aging, 1991.

Administration on Aging. *A Profile of Older Americans*: 1995. Rockville, MD: Administration on Aging, U.S. Department of Health and Human Services. http://www.aoa.dhhs.gov/aoa/pages/profi l95.html [Accessed Sept 23, 1996].

Aldrich, M.S. Effects of alcohol on sleep. In: Gomberg, E.; Hedgedus, A.M.; and Zucker, R.A., eds. *Alcohol Problems and Aging*. Washington DC: National Institute on Alcohol Abuse and Alcoholism, in press.

Alterman, A.I.; Kushner, H.; and Holahan, J.M. Cognitive functioning and treatment outcome in alcoholics. *Journal of Nervous and Mental Disorders* 178(8):494–499, 1990.

Altpeter, M.; Schmall, V.; Rakowski, W.; Swift, R.; and Campbell, J. *Alcohol and Drug Problems in the Elderly: Instructor's Guide* [Project ADEPT Curriculum for Primary Care Physician Training]. Providence, RI: Center for Alcohol and Addiction Studies, 1994.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 3rd ed., revised. Washington, DC: American Psychiatric Association, 1987.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. Washington, DC: American Psychiatric Association, 1994.

American Society of Addiction Medicine. *Patient Placement Criteria for the Treatment of Substance-Related Disorders*, 2nd ed. Washington, DC: American Society of Addiction Medicine, 1996.

Anda, R.F.; Williamson, D.F.; and Remington, P.L. Alcohol and fatal injuries among U.S. adults. *Journal of the American Medical Association* 260:2529–2532, 1988.

Anderson, P., and Scott, E. The effect of general practitioners' advice to heavy drinking men. *British Journal of Addiction* 87:891–900, 1992.

Annis, H.M. Is inpatient rehabilitation of the alcoholic cost effective? Con position. *Advances in Alcohol and Substance Use* 5:175, 1986.

Artaud-Wild, S.M.; Connor, S.L.; Sexton, G.; and Connor, W.E. Differences in coronary mortality can be explained by differences in cholesterol and saturated fat intakes in 40 countries but not in France and Finland. *Circulation* 88:2771–2779, 1993.

Atkinson, R. Alcohol problems of the elderly. *Alcohol and Alcoholism* 22(4):415–417, 1987.

Atkinson, R. Persuading alcoholic patients to seek treatment. *Comprehensive Therapy* 11(11):16–24, 1985.

Atkinson, R.M. Age-specific treatment of older adult alcoholics. In: Gomberg, E.S.L.; Hegedus, A.M.; and Zucker, R.A., eds. *Alcohol Problems and Aging*. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, in press.

Atkinson, R.M. Aging and alcohol use disorders: Diagnostic issues in the elderly. *International Psychogeriatrics* 2:55–72, 1990.

Atkinson, R.M. Late onset problem drinking in older adults. *International Journal of Geriatric Psychiatry* 9:321–326, 1994.

Atkinson, R.M. Substance use and abuse in late life. In: Atkinson, R.M., ed. *Alcohol and Drug Abuse in Old Age*. Washington, DC: American Psychiatric Press, 1984. pp. 1–21.

Atkinson, R.M. Treatment programs for aging alcoholics. In: Beresford, T., and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995. pp.186–210.

Atkinson, R.M., and Ganzini, L. Substance abuse. In: Coffey, C.E., and Cummings, J.L., eds. *Textbook of Geriatric Neuropsychiatry*. Washington, DC: American Psychiatric Press, 1994. pp. 297–321.

Atkinson, R.M.; Ganzini, L.; and Bernstein, M.J. Alcohol and substance-use disorders in the elderly. In: Birren, J.E.; Sloane, R.B.; and Cohen, G.D., eds. *Handbook of Mental Health and Aging*, 2nd ed. San Diego, CA: Academic Press, 1992. pp. 515–555.

Atkinson, R.M., and Kofoed, L.L. Alcohol and drug abuse in old age: A clinical perspective. *Substance and Alcohol Actions and Misuse* 3(6):353–368, 1982.

Atkinson, R.M., and Schuckit, M.A. Geriatric alcohol and drug misuse and abuse. *Advances in Alcohol and Substance Abuse* 3:195–237, 1983.

Atkinson, R.M.; Tolson, R.L.; and Turner, J.A. Factors affecting outpatient treatment compliance of older male problem drinkers. *Journal of Studies on Alcohol* 54:102–106, 1993.

Atkinson, R.M.; Tolson, R.L.; and Turner, J.A. Late versus early onset problem drinking in older men. *Alcoholism: Clinical and Experimental Research* 14:574–579, 1990b.

Atkinson, R.M.; Turner, J.A.; Kofoed, L.L.; and Tolson, R.L. Early versus late onset alcoholism in older persons: Preliminary findings. *Alcoholism: Clinical and Experimental Research*, 9:513–515, 1985.

Avorn, J.; Monane, M.; Everitt, D.E.; Beers, M.H.; and Fields, D. Clinical assessment of extrapyradimal signs in nursing home patients given antipsychotic medication. *Archives of Internal Medicine* 154(10):1113–1117, 1994.

Babor, T.; Korner, P.; Wilber, C.; and Good, S. Screening and early intervention strategies for harmful drinkers: Initial lessons from the AMETHYST Project. *Australian Drug and Alcohol Review* 6:325–339, 1987.

Babor, T.F. Avoiding the horrid and beastly sin of drunkenness: Does dissuasion make a difference? *Journal of Consulting and Clinical Psychology* 62:1127–1140, 1994.

Babor, T.F.; de la Fuenta, J.R.; Saunders, J.; and Grant, M. *AUDIT: The Alcohol Use Disorders Identification Test: Guidelines for Its Use in Primary Health Care*. Geneva, Switzerland: World Health Organization, 1992.

Babor, T.F., and Grant, M. *Project on Identification and Management of Alcohol-Related Problems. Report on Phase II: A Randomized Clinical Trial of Brief Interventions in Primary Health Care*. Geneva, Switzerland: World Health Organization, 1992.

Babor T.F.; Grant, M.; Acuda, W.; Burns, F.H.; Campillo, C.; DelBoca, F.K.; Hodgson, R.; Ivanets, N.N.; Lukomskya, M.; and Machuna, M. A randomized clinical trial of brief interventions in primary care: Summary of a WHO project. *Addiction* 89:657–660, 1994.

Baker, S.L. Substance abuse disorders in aging veterans. In: Gottheil, E.; Druley, R.A.; Skiloday, T.E.; and Waxman, H., eds. *Alcohol, Drug Addiction and Aging*. Springfield, IL: Charles C Thomas, 1985. pp. 303–311.

Balter, M.B. An analysis of psychotherapeutic drug consumption in the United States. In: Bowen, R.A., ed. *Proceedings of the Anglo-American Conference on Drug Abuse: Etiology of Drug Abuse I*. London: Royal Society of Medicine, 1973. pp. 58–68.

Barnas, C.; Rossmann, M.; Roessler, H.; Reimer, Y.; and Fleischhacker, W.W. Benzodiazepine and other psychotropic drug abuse by patients in a methadone maintenance program: Familiarity and preference. *Journal of Clinical Psychopharmacology* 12(6):397–402, 1992.

Barry, K., and Fleming, M. A comparison of the Alcohol Use Disorders Identification Test (AUDIT) to the SMAST-13 in a primary care sample. *Alcohol and Alcoholism* 2:33–42, 1993.

Beresford, T.P. Alcohol and aging: Looking ahead. In: Beresford, T.P., and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995a. pp. 327–336.

Beresford, T.P. Alcoholic elderly: Prevalence, screening, diagnosis, and prognosis. In: Beresford, T.P, and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995b. pp. 3–18.

Beresford, T.P.; Blow, F.C.; Brower, K.J.; Adams, K.M.; and Hall, R.C.W. Alcoholism and aging in the general hospital. *Psychosomatics* 29:61–72, 1988.

Beresford, T.P.; Blow, F.C.; Hill, E.; Singer, K.; and Lucey, M.R. Comparison of CAGE questionnaire and computer-assisted laboratory profiles in screening for covert alcoholism. *Lancet* 336:482–485, August 25, 1990.

Beresford, T.P., and Lucey, M.R. Ethanol metabolism and intoxication in the elderly. In: Beresford, T.P., and Gomberg, E.S., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995. pp. 117–127.

Bezchlibnyk-Butler, K.Z., and Jeffries, J.J., eds. *Clinical Handbook of Psychotropic Drugs*, 5th ed. Toronto, Canada: Hogrefe & Huber, 1995.

Bien, T.H.; Miller, W.R.; and Tonigan, J.S. Brief interventions for alcohol problems: A review. *Addiction* 88:315–335, 1993.

Blazer, D.; Cromwell, B.A.; and George, L.K. Alcohol abuse and dependence in the rural South. *Archives of General Psychiatry* 44:736–740, 1987a.

Blazer, D.; Hughes, D.C.; and George, L.K. The epidemiology of depression in an elderly community population. *Gerontologist* 27(3):281–287, 1987b.

Blazer, D., and Williams, C.D. Epidemiology of dysphoria and depression in an elderly population. *American Journal of Psychiatry* 137:439–444, 1980.

Blow, F.C. The spectrum of alcohol interventions for older adults. In: Gomberg, E.S.L.; Hegedus, A.M.; and Zucker, R.A., eds. *Alcohol Problems and Aging*. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, in press.

Blow, F.C.; Brower, K.J.; Schulenberg, J.E.; Demo-Dananberg, L.M.; Young, J.P.; and Beresford, T.P. The Michigan Alcoholism Screening Test—Geriatric Version (MAST-G): A new elderly-specific screening instrument. *Alcoholism: Clinical and Experimental Research* 16:372, 1992a.

Blow, F.C.; Cook, C.A.; Booth, B.M.; Falcon, S.P.; and Friedman, M.J. Age-related psychiatric comorbidities and level of functioning in alcoholic veterans seeking outpatient treatment. *Hospital and Community Psychiatry* 43:990–995, 1992.

Blow, F.C.; Walton, M.A.; Chermack, S.T.; Mudd, S.A.; Brower, K.J.; and Comstock, M.A. Treatment outcome for elderly alcoholics following elder-specific inpatient treatment. Manuscript submitted for publication, 1997.

Booth, B.M.; Blow, F.C.; Cook, C.A.; Bunn, J.Y.; and Fortney, J.C. Age and ethnicity among hospitalized alcoholics: A nationwide study. *Alcoholism: Clinical and Experimental Research* 16:1029–1034, 1992.

Brandt, J.; Butters, N.; Ryan, C.; and Bayog, R. Cognitive loss and recovery in long-term alcohol abusers. *Archives of General Psychiatry* 40:435–442, 1983.

Brennan, P.L., and Moos, R.H. Late-life problem drinking: Personal and environmental risk factors for 4-year functioning outcomes and treatment seeking. *Journal of Substance Abuse* 8:167–180, 1996.

Brennan, P.L.; Moos, R.H.; and Kim, J.Y. Gender differences in the individual characteristics and life contexts of late-middle-aged and older problem drinkers. *Addiction* 88:781–790, 1993.

Brower, K.J.; Mudd, S.; Blow, F.C.; Young, J.P.; and Hill, E.M. Severity and treatment of alcohol withdrawal in elderly versus younger patients. *Alcoholism: Clinical and Experimental Research* 18(1):196–201, 1994.

Brown, S.A.; Inaba, R.K.; Gillin, J.C.; Shuckit, M.A.; Stewart, M.A.; and Irwin, M.R. Alcoholism and affective disorders: Clinical course of depressive symptoms. *American Journal of Psychiatry* 152:45–52, 1995.

Brown, S.A., and Schuckit, M.A. Changes in depression among abstinent alcoholics. *Journal of Studies on Alcohol* 49(5):412–417, 1988.

Bucholz, K.K.; Sheline Y.; and Helzer, J.E. The epidemiology of alcohol use, problems, and dependence in elders: A review. In: Beresford, T.P, and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995. pp. 19–41.

Butler, R.N. Age-ism: Another form of bigotry. *Gerontologist* 9:243–246, 1969.

Butler, R.N., and Lewis, M.I. *Aging and Mental Health*, 2nd ed. St. Louis: C.V. Mosby, 1977.

Buysse, D.J. III; Monk, T.H.; Berman, S.R.; and Kupfer, D.J. The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research* 28:193–213, 1988.

Campbell, P.R. *Population Projections for States by Age, Sex, Race, and Hispanic Origin: 1995 to 2025*. Washington, DC: U.S. Bureau of the Census, Population Division, PPl-47, 1996.

Carethers, M. Health promotion in the elderly. *American Family Physician* 45:2253–2259, 1992.

Carlen, P.L.; McAndrews, M.P.; Weiss, R.T.; Dongier, M.; Hill, J.M.; Menzano, E.; Farcnik, K.; Abarbanel, J.; and Eastwood, M.R. Alcohol-related dementia in the institutionalized elderly. *Alcoholism: Clinical and Experimental Research* 18:1330–1334, 1994.

Carmelli, D.; Heath, A.C.; and Robinette, D. Genetic analysis of drinking behavior in World War II veteran twins. *Genetic Epidemiology* 10:201–213, 1993.

Cartensen, L.L.; Rychtarik, R.G.; and Prue, D.M. Behavioral treatment of the geriatric alocohol abuser: A long-term follow-up study. *Addictive Behaviors* 10(3):307–311, 1985.

Center for Substance Abuse Treatment. *Bringing Excellence to Substance Abuse Services in Rural and Frontier America*. Technical Assistance Publication (TAP) Series, Number 20. DHHS Pub. No. (SMA) 97-3134. Washington, DC: U.S. Government Printing Office, 1997.

Center for Substance Abuse Treatment. *Detoxification from Alcohol and Other Drugs.* Treatment Improvement Protocol (TIP) Series, Number 19. DHHS Pub. No. (SMA) 95-3046. Washington, DC: U.S. Government Printing Office, 1995a.

Center for Substance Abuse Treatment. *Rural Issues in Alcohol and Other Drug Abuse Treatment.* Technical Assistance Publication (TAP) Series, Number 10. DHHS Pub. No. (SMA) 96-3099. Washington, DC: U.S. Government Printing Office, 1996.

Center for Substance Abuse Treatment. *Treating Alcohol and Other Drug Abusers in Rural and Frontier Areas.* Technical Assistance Publication (TAP) Series, Number 17. DHHS Pub. No. (SMA) 95-3054. Washington, DC: U.S. Government Printing Office, 1995b.

Chapman, C.R., and Hill, C.F. Prolonged morphine self-administration and addiction liability. *Cancer* 63:1636–1644, 1989.

Chastain, S. The accidental addict. *Modern Maturity* February/March, 1992.

Chermack, S.T.; Blow, F.C.; Hill, E.M.; and Mudd S.A. The relationship between alcohol symptoms and consumption among older drinkers. *Alcoholism: Clinical and Experimental Research* 20(7):1153–1158, 1996.

Chick, J. Early intervention for hazardous drinking in the general hospital setting. *Australian Drug and Alcohol Review* 7(3):339–343, 1988.

Chick, J.; Ritson, B.; Connaughton, J.; and Stewart, A. Advice versus treatment for alcoholism: A controlled trial. *British Journal of Addictions* 83:159–170, 1988.

Christian, J.C.; Reed, T.; Carmelli, D.; Page, W.F.; Norton, J.A.; and Breitner, J.C.S. Self-reported alcohol intake and cognition in aging twins. *Journal of Studies on Alcohol* 56:414–416, 1995.

Ciraulo, D.A.; Shader, R.I.; Greenblatt, D.J.; and Creelman, W. *Drug Interactions in Psychiatry,* 2nd ed. Baltimore: Williams & Wilkins, 1995.

Clark, W.D. Alcoholism: Blocks to diagnosis and treatment. *American Journal of Medicine* 71:275–286, 1981.

Closser, M.H., and Blow, F.C. Special populations: Women, ethnic minorities, and the elderly. *Psychiatric Clinics of North America* 16(1):199–209, 1993.

Colsher, P.L., and Wallace, R.B. Elderly men with histories of heavy drinking: Correlates and consequences. *Journal of Studies on Alcohol* 51:528–535, 1990.

Colsher, P.L.; Wallace, R.B.; Pomrehn, P.R.; LaCroix, A.Z.; Cornoni-Huntley, J.; Blazer, D.; Scherr, P.A.; Berkman, L.; and Hennekens, C.H. Demographic and health characteristics of elderly smokers: Results from established populations for epidemiologic studies of the elderly. *American Journal of Preventative Medicine* 6:61–70, 1990.

Conwell, Y. Suicide in elderly patients. In: Schneider, L.S.; Reynolds, C.F.; Lebowitz, B.D.; and Friedhoff, A.J., eds. *Diagnosis and Treatment of Depression in Late Life.* Washington, DC: American Psychiatric Press, 1991. pp. 397–418.

Cook, B.; Winokur, G.; Garvey, M.; and Beach, V. Depression and previous alcoholism in the elderly. *British Journal of Psychiatry* 158:72–75, 1991.

Cooper, D.B. Alcohol home detoxification: A way found. *British Journal of Nursing* 4:1315–1318, 1995.

Cooperstock, R., and Parnell, P. Research on psychotropic drug use: A review of findings and methods. *Social Science and Medicine* 16:1179–1196, 1982.

Cotton, N.S. The familial incidence of alcoholism: A review. *Journal of Studies of Alcohol* 40:89–116, 1979.

Cox, J.L. Smoking cessation in the elderly patient. *Clinics in Chest Medicine* 14(3):423–428, 1993.

Culebras, A. Update on disorders of sleep and the sleep–wake cycle. *Psychiatric Clinics of North America* 15:467–489, 1992.

Curtis, J.R.; Geller, G.; Stokes, E.J.; Levine, D.M.; and Moore, R.D. Characteristics, diagnosis, and treatment of alcoholism in elderly patients. *Journal of the American Geriatrics Society* 37:310–316, 1989.

Cusack, B.J., and Vestal, R.E. Clinical pharmacology: Special considerations in the elderly. In: Calkins, E.; Dovin, P.J.; and Ford, A.B., eds. *Practice of Geriatric Medicine*. Philadelphia: W.B. Saunders, 1986. pp. 115–136.

D'Archangelo, E. Substance abuse in later life. *Canadian Family Physician* 39:1986–1993, 1993.

Davidson, D.M. Cardiovascular effects of alcohol. *Western Journal of Medicine* 151:430–439, 1989.

DeHart, S.S., and Hoffmann, H.G. Screening and diagnosis of "alcohol abuse and dependence" in older adults. *International Journal of the Addictions* 30:1717–1747, 1995.

Derogatis, L.R. *Brief Symptom Inventory (BSI): Administration, Scoring, and Procedures Manual*, 3rd ed. Minneapolis, MN: National Computer Systems, 1994a.

Derogatis, L.R. *Symptom Checklist-90-Revised (SCL-90-R): Administration, Scoring, and Procedures Manual*, 3rd ed. Minneapolis, MN: National Computer Systems, 1994b.

Derogatis, L.R.; and Melisaratos, N. The Brief Symptom Inventory: An introductory report. *Psychological Medicine* 13(3):595–605, 1983.

Dey, A.N. Characteristics of elderly home health care users: Data from the 1994 National Home and Hospice Care Survey. *Advance Data From Vital and Health Statistics*, No. 279. Hyattsville, MD: National Center for Health Statistics, 1996.

DiClemente, C.C., and Hughes, S.O. Stages of change profiles in alcoholism treatment. *Journal of Substance Abuse* 2(2):217–235, 1990.

DiClemente, C.C.; Prochaska, J.O.; Fairhurst S.K.; Velicer, W.F.; Velasquez, M.M.; and Rossi, J.S. The process of smoking cessation: An analysis of precontemplation, contemplation, and preparation stages of change. *Journal of Consulting and Clinical Psychology* 59(2):295–304, April 1991.

Dobson, K.S., ed. *Handbook of Cognitive–Behavioral Therapies.* New York: Guilford Press, 1988.

Douglass, R.L. Aging and alcohol problems: Opportunities for socioepidemiologic research. In: Galanter, M., ed. *Recent Developments in Alcoholism.* New York: Plenum Press, 1984. pp. 251–266.

Droller, H. Some aspects of alcoholism in the elderly. *Lancet* 1:137–139, 1964.

Dufour, M., and Fuller, R.K. Alcohol in the elderly. *Annual Review of Medicine* 46:123–132, 1995.

Dufour, M.C.; Archer, L.; and Gordis, E. Alcohol and the elderly. *Clinics in Geriatric Medicine* 8:127–141, 1992.

Dunlop. J. Peer groups support seniors fighting alcohol and drugs. *Aging* 361:28–32, 1990.

Dunlop, J.; Skorney, B.; and Hamilton, J. Group treatment for elderly alcoholics and their families. *Social Work in Groups* 5:87–92, 1982.

Dupree, L., and Schonfeld, L. *Assessment and Treatment Planning for Alcohol Abusers: A Curriculum Manual.* FMHI Publication Series, Number 109. Tampa: Florida Mental Health Institute, University of South Florida, 1986.

Dupree, L.W.; Broskowski, H.; and Schonfeld, L. The Gerontology Alcohol Project: A behavioral treatment program for elderly alcohol abusers. *Gerontologist* 24:510–516, 1984.

Dupree, L.W., and Patterson, R. Older adults. In: Hersen, M., and Turner, S.M., eds. *Diagnostic Interviewing.* New York: Plenum Press, 1985. pp. 337–359.

Egan, G. *The Skilled Helper: A Problem-Management Approach to Helping,* 5th ed. Pacific Grove, CA: Brooks/Cole, 1994.

Ensrud, K.E.; Nevitt, M.C.; Yunis, C.; Cauley, J.A.; Seeley, D.G.; Fox, K.M.; and Cummings, S.R. Correlates of impaired function in older women. *Journal of the American Geriatrics Society* 42:481–489, 1994.

Ewing, J.A. Detecting alcoholism: The CAGE Questionnaire. *Journal of the American Medical Association* 252:1905–1907, 1984.

Falvo, D. *Effective Patient Education: A Guide to Increased Compliance,* 2nd ed. Gaithersburg, MD: Aspen, 1994.

Falvo, D.R.; Holland, B.; Brenner, J.; and Benshoff, J.J. Medication use practices in the ambulatory elderly. *Health Values* 14(3):10–16, 1990.

Fillmore, K. Prevalence, incidence, and chronicity of drinking patterns and problems among men as a function of age: A longitudinal cohort analysis. *Journal of Addiction* 82:77–83, 1987.

Finch, J., and Barry, K.L. Substance use in older adults. In: Fleming, M., and Barry, K., eds. *Addictive Disorders.* St. Louis, MO: Mosby/Yearbook Medical Publishers, 1992. pp. 270–286.

Finkel, S.I. Group psychotherapy with older people. *Hospital and Community Psychiatry* 41:1189–1191, 1990.

Finlayson, R.; Hurt, R.; Davis, L.; and Morse, R. Alcoholism in elderly persons: A study of the psychiatric and psychosocial features of 216 inpatients. *Mayo Clinic Proceedings* 63:761–768, 1988.

Finlayson, R.E. Comorbidity in elderly alcoholics. In: Beresford, T., and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995a. pp. 56–69.

Finlayson, R.E. Misuse of prescription drugs. *International Journal of the Addictions* 30(13&14):1871–1901, 1995b.

Finlayson, R.E. Prescription drug abuse in older persons. In: Atkinson, R.M., ed. *Alcohol and Drug Abuse in Old Age*. Washington, DC: American Psychiatric Press, 1984. pp. 61–70.

Finlayson, R.E., and Hurt, R.D. Medical consequences of heavy drinking by the elderly. In: Gomberg, E.; Hedgedus, A.M.; and Zucker, R.A., eds. *Alcohol Problems and Aging*. Washington DC: National Institute on Alcohol Abuse and Alcoholism, in press.

Finlayson, R.E.; Maruta T.; Morse, R.M.; and Martin, M.A. Substance dependence and chronic pain: Experience with treatment and follow-up results. *Pain* 26(2):175–180, 1986a.

Finlayson, R.E.; Maruta, T.; Morse, R.M.; Swenson, W.M.; and Martin, M.A. Substance dependence and chronic pain: Profile of 50 patients treated in an alcohol and drug dependence unit. *Pain* 26(2):167–174, 1986b.

Finney, J.W., and Monahan, S.C. The cost-effectiveness of treatment for alcoholism: A second approximation. *Journal of Studies on Alcohol* 57:229–243, 1996.

Fiore, M.C.; Novotny, T.E.; Pierce, J.P.; Giovino, G.A.; Hatziandreu, E.J.; Newcomb, P.A.; Surawicz, T.S.; and Davis, R.M. Methods used to quit smoking in the United States: Do cessation programs help? *Journal of the American Medical Association* 263:2760-2765.

First, M.B.; Spitzer, R.L.; Gibbon, M.; and Williams, J.B.W. Structured Clinical Interview for DSM-IV Axis I Disorders–Patient Edition (SCID-I/P, Version 2.0). New York: Biometrics Research Department, New York State Psychiatric Institute, 1996.

Fitzgerald, J.L., and Mulford, H.A. Elderly versus younger problem drinker "treatment" and recovery experiences. *British Journal of Addiction* 87:1281–1291, 1992.

Fleming, A.S.; Buchanan, J.G., Santos, J.F.; and Rickards, L.D. *Mental Health Services for the Elderly: Report on a Survey of Community Mental Health Centers*, Vol. I. Washington, DC: The Action Committee to Implement the Mental Health Recommendations of the 1981 White House Conference on Aging, 1984.

Fleming, M., and Barry, K. A three-sample test of a masked alcohol screening questionnaire. *Alcohol and Alcoholism* 26:81–91, 1991.

Fleming, M.; Barry, K.; and MacDonald, R. The Alcohol Use Disorders Identification Test in college sample. *International Journal of Addiction* 26:1173–1185, 1991.

Fleming, M.; Barry, K.L.; Adams, W.; Manwell, L.B.; and Krecker, M. Guiding Older Adult Lifestyles (Project GOAL): The effectiveness of brief physician advice for alcohol problems in older adults. Manuscript submitted for publication, 1997a.

Fleming, M.F.; Barry, K.L.; Manwell, L.B.; Johnson, K.; and London, R. Brief physician advice for problem alcohol drinkers: A randomized controlled trial in community-based primary care practices. *Journal of the American Medical Association* 277:1039–1045, 1997b.

Folstein, M.F.; Folstein, S.E.; and McHugh, P.R. Mini-Mental State: A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research* 12:189–198, 1975.

Forster, L.E.; Pollow, R.; and Stoller, E.P. Alcohol use and potential risk for alcohol-related adverse drug reactions among community-based elderly. *Journal of Community Health* 18:225–239, 1993.

Fortney, J.C.; Booth, B.M.; Blow, F.C.; and Bunn, J.Y. The effects of travel barriers and age on the utilization of alcoholism treatment aftercare. *American Journal of Drug and Alcohol Abuse* 21(3):391–406, 1995.

Fouts, M., and Rachow, J. Choice of hypnotics in the elderly. *P&T News* 14(8):1–4, 1994.

Foy, A.; O'Connell, D.; Henry, D.; Kelly, J.; Cocking, S.; and Halliday, J. Benzodiazepine use as a cause of cognitive impairment in elderly hospital inpatients. *Journal of Gerontology: Biological Sciences and Medical Sciences* 50(2):99–106, 1995.

Fredriksen, K.I. North of Market: Older women's alcohol outreach program. *Gerontologist* 32:270–272, 1992.

Fuchs, C.S.; Stampfer, M.J.; Colditz, J.A.; Giovannucci, F.I.; Manson, T.E.; Kawachi, M.B.; Hunter, D.J.; Hankinson, S.E.; Hennekens, C.H.; Rosner, B.; Spelzer, F.E.; and Willet, W.C. Alcohol consumption and mortality among woman. *New England Journal of Medicine* 332:1245–1250, 1995.

Gambert, S.R. Substance abuse in the elderly. In: Lowinson, J.H.; Ruiz, P.; and Millman, R.B., eds. *Substance Abuse: A Comprehensive Textbook*, 2nd ed. Baltimore: Williams & Wilkins, 1992. pp. 843–851.

Gambert, S.R., and Katsoyannis, K.K. Alcohol-related medical disorders of older heavy drinkers. In: Beresford, T.P., and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995. pp. 70–81.

Gatz, M., ed. *Emerging Issues in Mental Health and Aging*. Washington, DC: American Psychological Association, 1995.

Geller, G.; Levine, D.M.; Mamon, J.A.; Moore, R.D.; Bone, L.R.; and Stokes, E.J. Knowledge, attitudes, and reported practices of medical students and house staff regarding the diagnosis and treatment of alcoholism. *Journal of the American Medical Association* 261:3115–3120, 1989.

George, L.K.; Landerman, R.; Blazer, D.G.; and Anthony, J.C. Cognitive impairment. In: Robins, L.N., and Regier, D.A., eds. *Psychiatric Disorders in America: The Epidemiologic Catchment Area Study*. New York: Free Press, 1991. pp. 291–327.

Glantz, M.D., and Backenheimer, M.S. Substance abuse among elderly women. *Clinical Gerontologist* 8(1):3–26, 1988.

Glazer, W.M.; Morgenstern, H.; Doucette, J.T. Predicting the long-term risk of tardive dyskinesia in outpatients maintained on neuroleptic medications. *Journal of Clinical Psychology* 54(4):133–139, 1993.

Goldberg, R.J.; Burchfiel, C.M.; Reed, D.M.; Wergowske, G.; and Chiu, D. A prospective study of the health effects of alcohol consumption in middle-aged and elderly men: The Honolulu Heart Program. *Circulation* 89:651–659, 1994.

Gomberg, E.S.L. Drugs, alcohol, and aging. In: Kozlowski, L.T., ed. *Research Advances in Alcohol and Drug Problems*. New York: Plenum Press, 1990. pp. 171–213.

Gomberg, E.S.L. "Elderly alcoholic men and women in treatment." Paper presented at the Research Society on Alcoholism Annual Scientific Meeting, San Diego, California, 1992a.

Gomberg, E.S.L. Medication problems and drug abuse. In: Turner, F.J., ed. *Mental Health and the Elderly*. New York: Free Press, 1992b. pp. 355–374.

Gomberg, E.S.L. Older women and alcohol use and abuse. In: Galanter, M., ed. *Recent Developments in Alcoholism: Volume 12. Alcoholism and Women*. New York: Plenum Press, 1995. pp. 61–79.

Gomberg, E.S.L. Overview: Issues of alcohol use and abuse in the elderly population. *Pride Institute Journal of Long Term Health Care* 7:4–17, 1988.

Gomberg, E.S.L. Recent developments in alcoholism: Gender issues. In: Galanter, M., ed. *Recent Developments in Alcoholism: Volume. 11*. New York: Plenum Press, 1993. pp. 95–107.

Gomberg, E.S.L. Risk factors for drinking over a woman's life span. *Alcohol Health and Research World* 18:220–227, 1994.

Goodman, A.C.; Holder, H.D.; and Nishiura, E. Alcoholism treatment offset effects: A cost model. *Inquiry* 28:168–178, 1991.

Goodwin, D.W. Family studies on alcoholism. *Journal of Studies of Alcohol* 42:156–162, 1981.

Goodwin, D.W., and Warnock, L.K. Alcoholism: A family disease. In: Grances, R.G., and Miller, S.L., eds. *Clinical Textbook of Addictive Diseases*. New York: Guiliford, 1991. pp. 458–500.

Gordon, T., and Kamel, W.B. Drinking and its relation to smoking, blood pressure, blood lipids, and uric acid. *Archives of Internal Medicine* 143:1366–1374, 1983.

Graham, K.; Carver, V.; and Brett, P.J. Alcohol and drug use by older women: Results of a national survey. *Canadian Journal of Aging* 14(4):769–791, 1995a.

Graham, K.; Clarke, D.; Bois, C.; Carver, V.; Dolenki, L.; Smythe, C.; Harrison, S.; Marshenan, J.; and Brett, P. Addictive behavior of older adults. *Addictive Behaviors* 21(3):331–348, 1996.

Graham, K.; Saunders, S.J.; Flower, M.C.; Timney, C.B.; White-Campbell, M.; and Pietropaolo, A.Z. *Addictions Treatment for Older Adults: Evaluation of an Innovative Client-Centered Approach*. New York: Haworth Press, 1995b.

Grant, I. Alcohol and the brain: Neuropsychological correlates. *Journal of Consulting and Clinical Psychology* 55:310–324, 1987.

Grant, I.; Adams, K.; and Reed, R. Aging, abstinence, and medical risk factors in the prediction of neuropsychologic deficit among long-term alcoholics. *Archives of General Psychiatry* 41:710–718, 1984.

Gronbaek, M.; Deis, A.; Sorensen, T.I.; Becker, U.; Borch-Johnsen, K.; Muller, C.; Schnohr, P.; and Jensen, G. Influence of sex, age, body mass index, and smoking on alcohol intake and mortality. *British Medical Journal* 308:302–306, 1994.

Gurnack, A.M. *Older Adults' Misuse of Alcohol, Medicines, and Other Drugs.* New York: Springer, 1997.

Guttmann, D. *A Study of Legal Drug Use by Older Americans.* Department of Health, Education, and Welfare Publication No. (ADM) 79-495. Washington, DC: Government Printing Office, 1977.

Haponik, E.F. Sleep disturbances of older persons: Physicians' attitudes. *Sleep* 15(2):168–172, 1992.

Harris, K.B., and Miller, W.R. Behavioural self-control training for problem drinkers: Components of efficacy. *Psychology of Addictive Behaviour* 4(2):90–92, 1990.

Hayakawa, K.; Kumagai, H.; Suzuki, Y.; Furusaw, N.; Haga, T.; Hoshi, T.; Fujiwara, Y.; and Yamaguchi, K. MR imaging of chronic alcoholism. *Acta Radiologica* 33:201–206, 1992.

Hazelden Foundation. *How To Talk to an Older Person Who Has a Problem With Alcohol or Medications.* Center City, MN: Hazelden Foundation, 1991.

Health Care Financing Administration. *Medicare and Medicaid Program Manual: Publication 11. Home Health Agency Manual: Health Insurance for the Aged.* http://www.hcfa.gov/pubforms/progman.htm [Accessed November 5, 1997; updated September 17, 1997].

Heather, N. Interpreting the evidence on brief interventions for excessive drinkers: The need for caution. *Alcohol and Alcoholism* 30:287–296, 1995.

Heather, N.; Campion, P.D.; Neville, R.G.; and MacCabe, D. Evaluation of a controlled drinking minimal intervention for problem drinkers in general practice (the DRAMS scheme). *Journal of the Royal College for the General Practitioner* 37(301):358–363, 1987.

Heather, N., and Tebbutt, J. Definitions of nonabstinent and abstinent categories in alcoholism treatment outcome classifications: A review and proposal. *Drug and Alcohol Dependence* 24:83–93, 1989.

Heller, D.A., and McClearn, G.E. Alcohol, aging, and genetics. In: Beresford, T.P, and Gomberg, E., eds. *Alcohol and Aging.* New York: Oxford University Press, 1995. pp. 99–114.

Helzer, J.E.; Bucholz, K.; and Robins, L.N. Five communities in the United States: Results of the Epidemiologic Catchment Area Survey. In: Helzer, J.E., and Canino, G.J., eds. *Alcoholism in North America, Europe, and Asia.* New York: Oxford University Press, 1991a. pp. 71–95.

Helzer, J.E.; Burnam, A.; and McEvoy, L.T. Alcohol abuse and dependence. In: Robins, L.N., and Reigier, D.A., eds. *Psychiatric Disorders in America: The Epidemiologic Catchment Area Study.* New York: Free Press, 1991b. pp. 81–115.

Hendricks, J.; Johnson, T.P.; Sheahan, S.L.; and Coons, S.J. Medication use among older persons in congregate living facilities. *Journal of Geriatric Drug Therapy* 6(1):47–61, 1991.

Hendrie, H.C.; Gao, S.; Hall, K.S.; Hui, S.L.; and Unversagt, F.W. The relationship between alcohol consumption, cognitive performance, and daily functioning in an urban sample of older Black Americans. *Journal of the American Geriatrics Society* 44:1158–1165, 1996.

Herings, R.M.; Stricker, B.H.; de Boer, A.; Bakker, A.; and Sturmans, F. Benzodiazepines and the risk of falling leading to femur fractures: Dosage more important than elimination half-life. *Archives of Internal Medicine* 155(16):1801–1807, 1995.

Higuchi, S., and Kono, H. Early diagnosis and treatment of alcoholism: The Japanese experience. *Alcohol and Alcoholism* 29:363–373, 1994.

Hill, H.F., and Chapman, C.R. Clinical effectiveness of analgesics in chronic pain states. In: NIDA Research Monograph Series, Number 95. Rockville, MD: National Institute on Drug Abuse, 1989. pp. 102–109.

Hodgson, R., and Rollnick, S. How brief intervention works: Representative cases as viewed by the health advisers. In: Babor, T.F., and Grant, M., eds. *Project on Identification and Management of Alcohol-Related Problems: Report on Phase II. A Randomized Clinical Trial of Brief Interventions in Primary Health Care.* Geneva, Switzerland: World Health Organization, 1992. pp. 221–232.

Holder, H.; Boyd, G.; Howard, J.; Flay, B.; Voas, R.; and Grossman, M. Alcohol-problem prevention research policy: The need for a phases research model. *Journal of Public Health Policy* 16:324–346, 1995.

Holder, H.D. Alcoholism treatment and potential health care cost saving. *Medical Care* 25:52–71, 1987.

Holder, H.D., and Blose, J.O. Alcoholism treatment and total health care utilization and costs: A four year longitudinal analysis of federal employees. *Journal of the American Medical Association* 256:1456–1460, 1986.

Holder, H.D., and Blose, J.O. The reduction of health care costs associated with alcoholism treatment: A 14 year longitudinal study. *Journal of Studies on Alcohol* 53:293–302, 1992.

Holder, H.D.; Longabaugh, R.; Miller, W.R.; and Rubonis, A.V. The cost-effectiveness of treatment for alcoholism: A first approximation. *Journal of Studies on Alcohol* 52:517–540, 1991.

Holzer, C.E., III; Robins, L.N.; Myers, J.K.; Weissman, M.M.; Tischler, G.L.; Leaf, P.J.; Anthony, J.; and Bednarski, P.B. Antecedents and correlates of alcohol abuse and dependence in the elderly. In: Maddox, G.L.; Robins, L.N.; and Rosenberg, N., eds. *Nature and Extent of Alcohol Problems Among the Elderly.* NIAAA Research Monograph Series, Number 14. DHHS Pub. No. (ADM) 84-1321. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1984. pp. 217–244.

Hrubec, Z., and Omenn, G. Evidence of genetic predisposition to alcoholic cirrhosis and psychosis: Twin concordance for alcoholism and its end points by zygosity among male veterans. *Alcoholism* 5:207–215, 1981.

Hull, R. Incidence of selected language, speech and hearing disorders among the elderly. In: Hull, R., and Griffin, K.M., eds. *Communication Disorders in Aging.* Newbury Park, CA: Sage, 1989.

Hurt, R.D.; Eberman, K.A.; Slade, J.; and Karan, L. Treating nicotine addiction in patients with other addictive disorders. In: Orleans, C.T., and Slade, J., eds. *Nicotine Addiction: Principles and Management.* New York: Oxford University Press, 1993. pp. 310–326.

Hurt, R.D.; Finlayson, R.E.; Morse, R.M.; and Davis, L.J. Alcoholism in elderly persons: Medical aspects and prognosis of 216 patients. *Mayo Clinic Proceedings* 63:753–760, 1988.

Inouye, S.K.; Van Dyck, C.H.; Balkin, S.; Seigal A.P.; and Horowitz, R.J. Clarifying confusion: The Confusion Assessment Method. A new method for the detection of delerium. *Annals of Internal Medicine* 113:941–948, 1990.

Institute of Medicine. *Broadening the Base of Treatment for Alcohol Problems.* Washington, DC: National Academy Press, 1990.

Institute of Medicine. *Federal Regulation of Methadone Treatment.* Rettig, R., and Yarmolinsky, A., eds. Washington, DC: National Academy Press, 1995.

Janik, S., and Dunham, R. A nationwide examination of the need for specific alcoholism treatment programs for the elderly. *Journal of Studies on Alcohol* 44:307–317, 1983.

Jarvik, M.E., and Schneider, N.G. Nicotine. In: Lowinson, J.H.; Ruiz, P.; and Millman, R.B., eds. *Substance Abuse: A Comprehensive Textbook.* Baltimore: Williams & Wilkins, 1992. pp. 334–356.

Jinks, M.J., and Raschko, R.R. A profile of alcohol and prescription drug abuse in a high-risk community-based elderly population. *Drug Intelligence and Clinical Pharmacy* 24:971–975, 1990.

Johnson, V.E. *I'll Quit Tomorrow.* New York: Harper and Row, 1973.

Joseph, C.L. Alcohol and drug misuse in the nursing home. *International Journal of the Addictions* 30(13&14):1953–1983, 1995.

Joseph, C.L.; Ganzini, L.; and Atkinson, R. Screening for alcohol use disorders in the nursing home. *Journal of the American Geriatrics Society* 43:368–373, 1995.

Joseph, C.L.; Rasmussen, J.; Ganzini, L.; and Atkinson, R.M. Outcome of nursing home care for residents with alcohol use disorders. *International Journal of Geriatric Psychiatry* 12(7):767–772, 1997.

Kahan, M.; Wilson, L.; and Becker, L. Effectiveness of physician-based interventions with problem drinkers: A review. *Canadian Medical Journal* 152(6):851–856, 1995.

Kashner, T.M.; Rodell, D.E.; Ogden, S.R.; Guggenheim, F.G.; and Karson, C.N. Outcomes and costs of two VA inpatient programs for older alcoholic patients. *Hospital and Community Psychiatry* 43:985–989, 1992.

Kaslow, F., and Robison, J.A. Long-term satisfying marriages: Perceptions of contributing factors. *American Journal of Family Therapy* 24:153–170, 1996.

Katzman, R.; Brown, T.; Fuld, P.; Peck, A.; Schechter, R.; and Schimmel, H. Validation of a short Orientation–Memory–Concentration Test of cognitive impairment. *American Journal of Psychiatry* 140(6):734–739, 1983.

Keeler, E.B.; Solomon, D.H.; Beck, J.C.; Mendenhall, R.C.; and Kane, R.L. Effect of patient age on duration of medical encounters with physicians. *Medical Care* 20:1101–1108, 1982.

Kiernan, R.J.; Mueller, J.; Langston, J.W.; and Van Dyke, C. The Neurobehavioral Cognitive Status Examination: A brief but differentiated approach to cognitive assessment. *Annals of Internal Medicine* 107:481–485, 1987.

King, M.B. Alcohol abuse and dementia. *International Journal of Geriatric Psychiatry* 1:31–36, 1986.

Klatsky, A.L.; Armstrong, M.A.; and Friedman, G.D. Risk of cardiovascular mortality in alcohol drinkers, ex-drinkers, and non-drinkers. *American Journal of Cardiology* 66:1237–1242, 1990.

Knegtering, H.; Eijck, M.; and Huijsman, A. Effects of antidepressants on cognitive functioning of elderly patients: A review. *Drugs and Aging* 5(3):192–199, 1994.

Koenig, H.G, and Blazer, D.G., II. Depression. In: Birren, J.E., ed. *Encyclopedia of Gerontology: Age, Aging, and the Aged*. Vol. I. San Diego, CA: Academic Press, 1996. pp. 415–428.

Kofoed, L.L.; Tolson, R.L.; Atkinson, R.M.; Toth, R.L.; and Turner, J.A. Treatment compliance of older alcoholics: An elder-specific approach is superior to "mainstreaming." *Journal of Studies on Alcohol* 48:47–51, 1987.

Korrapati, M.R., and Vestal, R.E. Alcohol and medicaitons in the elderly: Complex interactions. In: Beresford, T.P., and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995. pp. 42–69.

Kovar, M. Health of the elderly and use of health services. *Public Health Reports* 92:9–19, 1977.

Kranzler, H.R.; Babor, T.F.; and Lauerman, R.J. Problems associated with average alcohol consumption and frequency of intoxication in a medical population. *Alcoholism: Clinical and Experimental Research* 14:119–126, 1990.

Kristenson, H.; Ohlin, H.; Hulten-Nosslin, M.B.; Trell, E.; and Hood, B. Identification and intervention of heavy drinking in middle-aged men: Results and follow-up of 24–60 months of long-term study with randomized controls. *Alcoholism: Clinical and Experimental Research* 7(2):203–209, 1983.

LaCroix, A.Z.; Guralnik, J.M.; Berkman, L.F.; Wallace, R.B.; and Satterfield, S. Maintaining mobility in late life: Smoking, alcohol consumption, physical activity, and body mass index. *American Journal of Epidemiology* 137:858–869, 1993.

Lapane, K.L.; Zierler, S.; Lasater, T.M.; Barbour, M.M.; Carleton, R.; and Hume, A.L. Is the use of psychotropic drugs associated with increased risk of ischemic heart disease? *Epidemiology* 6(4):376–381, 1995.

Lawton, M.P., and Brody, E.M. Assessment of older people: Self-maintaining and instrumental activities of daily living. *Gerontologist* 9:179–188, 1969.

Lebowitz, B.D. Correlates of success in community mental health programs for the elderly. *Hospital and Community Psychiatry* 39:721–722, 1988.

Lebowitz, B.D.; Light, E.; and Bailey F. Mental health center services for the elderly: The impact of coordination with area agencies on aging. *Gerontologist* 27(6):699–702, December 1987.

Lehman, A.F. A quality of life interview for the chronically mentally ill. *Evaluation and Program Planning* 11:51–62, 1988.

Leveille, S.G.; Buchner, D.M.; Koespell, T.D.; McCloskey, L.W.; Wolf, M.E.; and Wagner, E.H. Psychoactive medications and injurious motor vehicle collisions involving older drivers. *Epidemiology* 5(6):591–598, 1994.

Liberto, J.G., and Oslin, D.W. Early versus late onset of alcoholism in the elderly. *International Journal of the Addictions* 30:1799–1818, 1995.

Liberto, J.G.; Oslin, D.W.; and Ruskin, P.E. Alcoholism in older persons: A review of the literature. *Hospital and Community Psychiatry* 43(10):975–984, 1992.

Light, E.; Lebowitz, B.D.; and Bailey, F. CMHC's and elderly services: An analysis of direct and indirect services. *Community Mental Health Journal* 22(4):294–302, 1986.

Linn, M.W. Attrition of older alcoholics from treatment. *Addictive Diseases: An International Journal* 3:437–447, 1978.

Liskow, B.I.; Rinck, C.; Campbell, J.; and DeSouza, C. Alcohol withdrawal in the elderly. *Journal of Studies on Alcohol* 50:414–421, 1989.

Litten, R.Z.; Allen, J.; and Fertig, J. Pharmacotherapies for alcohol problems: A review of research with focus on developments since 1991. *Alcoholism: Clinical and Experimental Research* 20:859–876, 1996.

Lord, S.R.; Antsey, K.J.; Williams, P.; and Ward, J.A. Psychoactive medication use, sensori-motor function and falls in older women. *British Journal of Clinical Pharmacology* 39(3):227–234, 1995.

Maisto, S.A.; McKay, J.R.; and Connors, J.J. Self-report issues in substance abuse: State of the art and future directions. *Behavioral Assessment* 12(1):117–134, 1990.

Mammo, A., and Weinbaum, D.F. Some factors that influence dropping out from outpatient alcoholism treatment facilities. *Journal of Studies on Alcohol* 54:92–101, 1993.

Manheimer, D.I.; Davidson, S.T.; Balter, M.B.; Mellinger, G.D.; Cisin, I.H.; and Parry, H.J. Popular attitudes and beliefs about tranquilizers. *American Journal of Psychiatry* 130(11):1246–1253, 1973.

McCrady, B.S., and Langenbucher, J.W. Alcoholism treatment and health care system reform. *Archives of General Psychiatry* 53:737–746, 1996.

McHorney, C.A.; Ware, J.E.; Lu, J.F.R.; and Sherbourne, C.D. The MOS 36-Item Short-Form Health Survey (SF-36): III. Tests of data quality, scaling assumptions, and reliability across diverse patient groups. *Medical Care* 32:40–66, 1994.

McHorney, C.A.; Ware, J.E.; and Raczek, A.E. The MOS 36-Item Short-Form Health Survey (SF-36): II. Psychometric and clinical tests of validity of measuring physical and mental health constructs. *Medical Care* 31:247–263, 1993.

McInnes, E., and Powell, J. Drug and alcohol referrals: Are elderly substance abuse diagnoses and referrals being missed? *British Journal of Medicine* 308:444–446, 1994.

McLellan, A.T., and Durell, J. Outcome evaluation in psychiatric and substance abuse treatments: Concepts, rationale, and methods. In: Sederer, L., and Dickey, B., eds. *Outcomes Assessment in Clinical Practice.* Baltimore, MD: Williams & Wilkins, 1996. pp. 34–44.

McLellan, A.T.; Luborsky, L.; Cacciola, J.; and Griffith, J. New data from the addiction severity index: Reliability and validity in three centers. *Journal of Nervous Disease* 173:412–423, 1985.

McLellan, A.T.; Luborsky, L.; O'Brien, C.P.; and Woody, G.E. An improved diagnostic instrument for substance abuse patients: The addiction severity index. *Journal of Nervous and Mental Disorders* 168:26–33, 1990.

McLellan, A.T.; O'Brien, C.P.; Metzger, D.; Alterman, A.I.; Cornish, J.; and Urschel, H. How effective is substance abuse treatment—compared to what? In: O'Brien, C.P., and Jaffee, J., eds. *Advances in Understanding the Addictive States.* New York: Raven Press, 1992. pp. 231–252.

Meichenbaum, D., and Turk, D. *Facilitating Treatment Adherence: A Practitioner's Guidebook.* New York: Plenum Press, 1987.

Mellinger, G.D.; Balter, M.B.; and Uhlenhuth, E.H. Prevalence and correlates of the long-term use of anxiolytics. *Journal of the American Medical Association* 251:375–379, 1985.

Mertens, J.R.; Moos, R.H.; and Brennan, P.L. Alcohol consumption, life context, and coping predict mortality among late-middle-aged drinkers. *Alcoholism: Clinical and Experimental Research* 20:313–319, 1996.

Miller, F.; Whitcup, S.; Sacks, M.; and Lynch, P.E. Unrecognized drug dependence and withdrawal in the elderly. *Drug and Alcohol Dependence* 15:177, 1985.

Miller, W.R., and Hester, R.K. Inpatient alcoholism treatment: Who benefits? *American Psychologist* 41:794–805, 1986.

Miller, W.R., and Munoz, R.F. *How To Control Your Drinking*. Englewood Cliffs, NJ: Prentice-Hall, 1976.

Miller, W.R., and Rollnick, S. *Motivational Interviewing*. New York: Guilford Press, 1991.

Miller, W.R., and Sanchez, V.C. Motivating young adults for treatment and lifestyle change. In: Howard, G.S., and Nathan, P.E. *Alcohol Use and Misuse by Young Adults*. South Bend, IN: University of Notre Dame Press, 1994.

Miller, W.R., and Taylor, C.A. Relative effectiveness of bibliotherapy, individual and group self-control training in the treatment of problem drinkers. *Addictive Behaviors* 5:13–24, 1980.

Miller, W.R.; Tonigan, J.S.; and Longabaugh, R. *The Drinker Inventory of Consequences (DrInC)*. National Institute on Alcohol Abuse and Alcoholism Project MATCH Monograph Series, Volume 4. NIH Pub. No. 95-3911. Washington, DC: U.S. Government Printing Office, 1995.

Minnis, J. Toward an understanding of alcohol abuse among the elderly: A sociological perspective. *Journal of Alcohol and Drug Education* 33(3):32–40, 1988.

Moeller, F.G.; Gillin, J.C.; Irwin, M.; Golshan, S.; Kripke, D.F.; and Schuckit, M. A comparison of sleep EEGs in patients with primary major depression and major depression secondary to alcoholism. *Journal of Affective Disorders* 27:39–42, 1993.

Moore, R., and Pearson, T. Moderate alcohol consumption and coronary artery disease: A review. *Medicine* 65:242–267, 1986.

Moore, R.D.; Bone, L.R.; Geller, G.; Mamon, J.A.; Stokes, E.J.; and Levine, D.M. Prevention, detection and treatment of alcoholism in hospitalized patients. *Journal of the American Medical Association* 261:403–407, 1989.

Moos, R.H.; Brennan, P.L.; and Moos, B.S. Short-term processes of remission and nonremission among late-life problem drinkers. *Alcoholism: Clinical and Experimental Research* 15:948–955, 1991.

Moos, R.H.; Mertens, J.R.; and Brennan, P.L. Patterns of diagnosis and treatment among late-middle-aged and older substance abuse patients. *Journal of Studies on Alcohol* 54:479–488, 1993.

Mullan, E.; Katona, C.; and Bellew, M. Patterns of sleep disorders and sedative hypnotic use in seniors. *Drugs and Aging* 5(1):49–58, 1994.

Myers, J.E. *Adult Children and Aging Parents*. Alexandria, VA: American Counseling Association, 1989.

Myers, J.E., and Schwiebert, V. *Competencies for Gerontological Counseling*. Alexandria, VA: American Counseling Association, 1996.

Myers, J.K.; Weissman, M.M.; Tischler, G.L.; Holzer, C.E., III; Leaf, P.J.; Orvaschel, H.; Anthony, J.C.; Boyd, J.H.; Burke, J.D., Jr.; Kramer, M.; and Stolzman, R. Six-month prevalence of psychiatric disorders in three communities: 1980–1982. *Archives of General Psychiatry* 41:959, 1984.

National Center for Health Statistics. Cigarette smoking among adults—United States, 1994. *Morbidity and Mortality Weekly Report* 45(27):588–590, 1996.

National Institute on Alcohol Abuse and Alcoholism. Alcohol and aging. *Alcohol Alert* 2:1–5, 1988.

National Institute on Alcohol Abuse and Alcoholism. *The Physicians' Guide to Helping Patients With Alcohol Problems.* NIH Pub. No. 95-3769. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1995.

National Institutes of Health. Consensus Development Conference Statement. *Diagnosis and Treatment of Depression in Late Life* 9(3):1–27, 1991.

National Institutes of Health. Consensus Development Conference Statement. *The Treatment of Sleep Disorders in Older People* 8(3):1–22, 1990.

Nitcher, R.L.; Burke, W.J.; Roccaforte, W.H.; and Wengel, S.P. A collateral source version of the geriatric depression rating scale. *American Journal of Geriatric Psychiatry* 1:143–152, 1993.

Oppenheimer, C., ed. *Psychiatry in the Elderly,* 2nd ed. New York: Oxford University Press, 1997. pp. 661–686.

Orleans, C.T.; Jepson, C.; Resch, N.; and Rimer, B.K. Quitting motives and barriers among older smokers. *Cancer* 74:2055–2061, 1994a.

Orleans, C.T.; Resch, N.; Noll, E.; Keintz, M.K.; Rimer, B.K.; Brown, T.V.; and Snedden, T.M. Use of transdermal nicotine in a state-level prescription plan for the elderly. *Journal of the American Medical Association* 271:601–607, 1994b.

Oslin, D.; Liberto, J.G.; O'Brien, J.; Krois, S.; and Norbeck, J. Naltrexone as an adjunctive treatment for older patients with alcohol dependence. *American Journal of Geriatric Psychiatry* 5:324–332, 1997.

Oslin, D.W. and Liberto, J.G. Substance abuse in the elderly. In: Wilner, P., ed. *Psychiatry.* Philadelphia: J.B. Lippincott, 1995.

Oslin, D.W.; Pettinati, H.; Volpicelli, J.R.; and Katz, I.R. "Enhancing treatment compliance in elderly alcoholics: A new psychosocial intervention model." Paper presented at the annual meeting of the Gerontologic Society of America, Washington, DC, November 1997.

Osterling, A., and Berglund, M. Elderly first time admitted alcoholics: A descriptive study on gender differences in a clinical population. *Alcoholism: Clinical and Experimental Research* 18:1317–1321, 1994.

Ostrom, J.R.; Hammarlund, E.R.; Kristenson, D.B.; Plein, J.B.; and Kethley, A.B. Medication usage in an elderly population. *Medical Care* 23:157–164, 1985.

Parker, D.A.; Parker, E.S.; Brody, J.A.; and Schoenberg, R. Alcohol use and cognitive loss among employed men and women. *American Journal of Public Health* 73:521–526, 1983.

Patterson, R.L., and Dupree, L. Older adults. In: Hersen, M., and Turner, S., eds. *Diagnostic Interviewing*, 2nd ed. New York: Plenum Press, 1994. pp. 373–397.

Peele, S. Research issues in assessing addiction treatment efficacy: How cost effective are Alcoholics Anonymous and private treatment centers? *Drug and Alcohol Dependency* 25:179–182, 1990.

Persson, J., and Magnusson, P.H. Early intervention in patients with excessive consumption of alcohol: A controlled study. *Alcohol* 6(5):403–408, 1989.

Pfefferbaum, A.; Lim, K.; Zipursky, R.; Mathalon, D.H.; Rosenbloom, M.J.; Lane, B.; Ha, C.N.; and Sullivan, E.V. Brain gray and white matter volume loss accelerates with aging in chronic alcoholics: A quantitative MRI study. *Alcoholism: Clinical and Experimental Research* 16:1078–1089, 1992.

Piland, B. The aging process and psychoactive drug use in clinical treatment. In: *The Aging Process and Psychoactive Drug Use*. National Institute on Drug Abuse Services Research Monograph. Department of Health, Education, and Welfare Pub. No. (ADM) 79-813. Washington, DC: U.S. Government Printing Office, 1979. pp. 1–16.

Plomp, R. Auditory handicap of hearing impairment and the limited benefit of hearing aids. *Journal of the Acoustic Society of America* 63:533–549, 1978.

Pollock, V.; Schneider, L.; Zemansky, M.; Gleason, R.; and Pawluczyk, S. Topographic quantitative EEG amplitude in recovered alcoholics. *Psychiatry Research: Neuroimaging* 45:25–32, 1992.

Pomara, N.; Stanley, B.; Block R.; Berchou, R.C.; Stanley, M.; Greenblatt, D.J.; Newton, R.E.; and Gershon, S. Increased sensitivity of the elderly to the central depressant effects of diazepam. *Journal of Clinical Psychiatry* 46:185–187, 1985.

Portenoy, R.K. Therapeutic use of opioids: Prescribing and control issues. In: Cooper J.R.; Czechowicz D.J.; Molinari S.P.; Petersen, R.C., eds. *Impact of Prescription Drug Diversion Control Systems on Medical Practice and Patient Care*. NIDA Research Monograph Series, Number 131. NIH Pub. No. 93-3507. Washington, DC: U.S. Government Printing Office, 1993. pp. 35–50.

Powers, R.B., and Osborne, J.G. *Fundamentals of Behavior*. New York: West Publishing Co., 1976.

Prentice, R. Patterns of psychoactive drug use among the elderly. In: *The Aging Process and Psychoactive Drug Use*. National Institute on Drug Abuse Services Research Monograph. DHEW Pub. No. (ADM) 79-813. Washington, DC: U.S. Government Printing Office, 1979. pp. 17–41.

Prochaska, J., and DiClemente, C. Toward a comprehensive model of change. In: Miller, W.R., and Heather, N., eds. *Treating Addictive Behaviors: Processes of Change*. New York: Plenum Press, 1986. pp. 3–27.

Prochaska, J.O., and DiClemente, C.C. Processes and stages of change in smoking, weight control, and psychological distress. In: Schiffman, S., and Wills, T., eds. *Coping and Substance Abuse*. New York: Academic Press, 1985, pp. 319–245.

Prochaska, J.O.; DiClemente, C.C.; and Norcross, J.C. In search of how people change: Applications to addictive behaviors. *American Psychologist* 47(9):1102–1114, 1992.

Radloff, L.S. The CES-D Scale: A new self-report depression scale for research in the general population. *Applied Psychological Measurement* 1:385–401, 1977.

Rains, V., and Ditzler, T. Alcohol use disorders in cognitively impaired patients referred for geriatric assessment. *Journal of Addictive Diseases* 12:55–64, 1993.

Raschko, R. "Gatekeepers" do the casefinding in Spokane. *Aging* 361:38–40, 1990.

Ray, W.A. Psychotropic drugs and injuries among the elderly: A review. *Journal of Clinical Psychopharmacology* 12:386–396, 1992.

Ray, W.A.; Thapa, P.B.; and Shorr, R.I. Medications and the older driver. *Clinics in Geriatric Medicine* 9(2):413–438, 1993.

Regier, D.A.; Boyd, J.H.; Burke, J.D., Jr.; Rae, D.S.; Myers, J.K.; Kramer, M.; Robins, L.N.; George, L.K.; Karns, M.; and Locke, B.Z. One month prevalence of mental disorders in the United States: Based on five Epidemiological Catchment Area sites. *Archives of General Psychiatry* 45:977–986, 1988.

Regier, D.A.; Farmer, M.E.; Rae, D.S.; Locke, B.Z.; Keith, S.J.; Judd, L.L.; and Goodwin, F.K. Comorbidity of mental disorders with alcohol and other drug abuse. *Journal of the American Medical Association* 264(19):2511–2518, 1990.

Reich, T.; Cloninger, C.R.; Van Eerdewegh, P.; Rice, J.P.; and Mullaney, J. Secular trends in the familial transmission of alcoholism. *Alcoholism: Clinical and Experimental Research* 12:458–464, 1988.

Rice, C.; Longabaugh, R.; Beattie, M.; and Noel, N. Age group differences in response to treatment for problematic alcohol use. *Addiction* 88:1369–1375, 1993.

Rickels, K., and Schweizer, E. Anxiolytics: Indications, benefits, and risks of short- and long-term benzodiazepine therapy: Current research data. In: Cooper, J.R.; Czechowicz, D.J.; Molinari, S.P.; and Petersen, R.C., eds. *Impact of Prescription Drug Diversion Control Systems on Medical Practice and Patient Care.* NIDA Research Monograph Series, Number 131. NIH Pub. No. 93-3507. Washington, DC: U.S. Government Printing Office,1993. pp. 51–67.

Rimer, B.K. and Orleans, C.T. Tailoring smoking cessation for older adults. *Cancer* 74:2051–2054, 1994.

Robins, L.N.; Helzer, J.E.; Croughan, J.; and Ratcliffe, K.S. National Institute of Mental Health Diagnostic Interview Schedule: Its history, characteristics, and validity. *Archives of General Psychiatry* 38:381–389, 1981.

Rodrigo, E.K.; King, M.B.; and Williams, P. Health of long term benzodiazepine users. *British Medical Journal* (Clinical Research Edition) 296:603–606, 1988.

Rosin, A.J., and Glatt, M.M. Alcohol excess in the elderly. *Quarterly Journal of Studies on Alcohol* 32:53–59, 1971.

Roy, W., and Griffin, M. Prescribed medications and the risk of falling. *Topics in Geriatric Rehabilitation* 5(20):12–20, 1990.

Roy-Byrne, P.P., and Hommer, D. Benzodiazepine withdrawal: Overview and implications for the treatment of anxiety. *American Journal of Medicine* 84:1041–1052, 1988.

Ruthazer, R., and Lipsitz, L.A. Antidepressants and falls among elderly people in long-term care. *American Journal of Public Health* 83(5):746–749, 1993.

Salive, M.E.; Cornoni-Huntley, J.; LaCroix, A.Z.; Ostfield, A.M.; Wallace, R.B.; and Hennekens, C.H. Predictors of smoking cessation and relapse in older adults. *American Journal of Public Health* 82(9):1268–1271, 1992.

Salthouse, T.A. Speed of behavior and its implications for cognition. In: Birren. J.E., and Schaie, K.W., eds. *Handbook of the Psychology of Aging*. New York: Van Nostrand and Reinhold, 1985. pp. 400–426.

Salzman, C. (Task Force Chair). *Benzodiazepine Dependence, Toxicity, and Abuse: A Task Force Report of the American Psychiatric Association*. Washington, DC: American Psychiatric Press, 1990.

Salzman, C. Benzodiazepine treatment of panic and agoraphobia syndromes: Use, dependence, toxicity, abuse. *Journal of Psychiatric Research* 27:97–110, 1993a.

Salzman, C. Issues and controversies regarding benzodiazepine use. In: Cooper, J.R.; Czechowicz, D.J.; Molinari, S.P.; and Petersen, R.C., eds. *Impact of Prescription Drug Diversion Control Systems on Medical Practice and Patient Care*. NIDA Research Monograph Series, Number 131. NIH Pub. No. 93-3507. Washington, DC: U.S. Government Printing Office, 1993b. pp. 68–88.

Sanchez-Craig, M.; Neumann, B.; Souza-Formigoni, M.; and Rieck, L. Brief treatment for alcohol dependence: Level of dependence and treatment outcome. *Alcohol and Alcoholism Supplement* 1:515–518, 1991.

Saunders, J.B.; Aasland, O.G.; Babor, T.F.; de la Fuente, J.R.; and Grant, M. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption—II. *Addiction* 88:791–804, 1993.

Saunders, P.A. Epidemiology of alcohol problems and drinking patterns. In: John, R.M.; Copeland, M.T.; Aboou-Saleh, M.T.; and Blazer, D.G., eds. *Principles and Practice of Geriatric Psychiatry*. New York: Wiley, 1994. pp. 801–805.

Saunders, P.A.; Copeland, J.R.; Dewey, M.E.; Davidson, I.A.; McWilliam, C.; Sharma, V.; and Sullivan, C. Heavy drinking as a risk factor for depression and dementia in elderly men: Findings from the Liverpool Longitudinal Community Study. *British Journal of Psychiatry* 159:213–216, 1991.

Scherr, P.A.; LaCroix, A.Z.; Wallace, R.B.; Berkman, L.; Curb, J.D.; Cornoni-Huntley, J.; Evans, D.A.; and Hennekens, C.H. Light to moderate alcohol consumption and mortality in the elderly. *Journal of the American Geriatrics Society* 40:651–657, 1992.

Schmidt, A.; Barry, K.; and Fleming, M. A new screening test for the detection of problem drinkers: The Alcohol Use Disorders Identification Test (AUDIT). *Southern Medical Journal* 88:52–59, 1995.

Schonfeld, L., and Dupree, L. Older problem drinkers: Long-term and late-life onset abusers: What triggers their drinking? *Aging* 361:5–9, 1990.

Schonfeld, L., and Dupree, L.W. Antecedents of drinking for early- and late-onset elderly alcohol abusers. *Journal of Studies on Alcohol* 52:587–592, 1991.

Schonfeld, L., and Dupree, L.W. Treatment alternatives for older alcohol abusers. In: Gurnack, A., ed. *Older Adults' Misuse of Alcohol, Medicines, and Other Drugs: Research and Practice Issues*. New York: Springer, 1996, pp. 113–131.

Schonfeld, L., and Dupree, L.W. Treatment approaches for older problem drinkers. *International Journal of the Addictions* 30(13&14):1819–1842, 1995.

Schuckit, M.A. Alcohol and depression: A clinical perspective. *Acta Psychiatra Scandinavica Supplement* 337:28–32, 1994.

Schuckit, M.A. *Drug and Alcohol Abuse*, 3rd ed. New York: Plenum Press, 1989.

Schuckit, M.A. Geriatric alcoholism and drug abuse. *Gerontologist* 17:168–174, 1977.

Schuckit, M.A., and Morrissey, E.R. Drug abuse among alcoholic women. *American Journal of Psychiatry* 136:607–611, 1979.

Scott, E., and Anderson, P. Randomized controlled trial of general practitioner intervention in women with excessive alcohol consumption. *Drug and Alcohol Review* 10:313–321, 1990.

Scott, J.; Williams, J.M.G.; and Beck, A. *Cognitive Therapy in Clinical Practice: An Illustrative Casebook*. London, UK: Routledge, 1989.

Shaper, A.G.; Wannamethee, G.; and Walker, M. Alcohol and mortality in British men: Explaining the U-shaped curve. *Lancet* 2:1267–1273, 1988.

Sheahan, S.L.; Coons, S.J.; Robbins, C.A.; Martin, S.S.; Hendricks, J.; and Latimer, M. Psychoactive medication, alcohol use and falls among older adults. *Journal of Behavioral Medicine* 18(2):127–140, 1995.

Sheahan, S.L.; Hendricks, J.; and Coons, S.J. Drug misuse among the elderly: A covert problem. *Health Values* 13(3):22–29, 1989.

Shear, P.K.; Jerrigan, T.L.; and Butters, N. Volumetric magnetic resonance imaging quantification of longitudinal brain changes in abstinent alcoholics. *Alcoholism: Clinical and Experimental Research* 18:172–176, 1994.

Sheikh, J.I., and Yesavage, J.A. Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist* 5(1&2):165–173, 1986.

Shipman, A. Communities aren't helpless: Outreach to older alcoholics works. *Aging* 361:18–21, 1990.

Simon, A.; Epstein L.; and Reynolds L. Alcoholism in the geriatric mentally ill. *Geriatrics* 23:125–131, 1968.

Smith, D.M., and Atkinson, R.M. Alcoholism and dementia. In: Gurnack A., ed. *Older Adults' Misuse of Alcohol, Medicines, and Other Drugs: Research and Practice Issues.* New York: Springer, 1997. pp. 132–158.

Smith, J.W. Medical manifestations of alcoholism in the elderly. *International Journal of the Addictions* 30(13&14):1749–1798, 1995.

Smith, V. Symptom checklist-90-revised (SCL-90-R) and the brief symptom inventory (BSI). In: Sederer, L., Dickey, B., eds. *Outcomes Assessment in Clinical Practice.* Baltimore: Williams & Wilkins, 1996.

Sobell, L.C.; Brown, J.; Leo, G.I.; and Sobell, M.B. The reliability of the alcohol timeline followback when administered by telephone and by computer. *Drug and Alcohol Dependence* 42(1):49–54, 1996.

Sobell, L.C.; Sobell, M.B.; Leo, G.I.; and Cancilla, A. Reliability of a timeline method: Assessing normal drinkers' reports of recent drinking and a comparative evaluation across several populations. *British Journal of Addiction* 83(4): 393–402, 1988.

Solomon, K.; Manepalli, J.; Ireland, G.A.; and Mahon, G.M. Alcoholism and prescription drug abuse in the elderly: St. Louis University grand rounds. *Journal of the American Geriatric Society* 41(1):57–69, 1993.

Speer, D.C., and Bates, K. Comorbid mental and substance disorders among older psychiatric patients. *Journal of the American Geriatric Society* 40:886–890, 1992.

Speirs, C.J.; Navey, F.L.; Broods, D.J.; and Impallomeni, M.G. Opisthotonos and benzodiazepine withdrawal in the elderly. *Lancet* 2:1101, 1986.

Spencer G. *Projections of the Population of the United States, by Age, Sex, and Race: 1988 to 2080.* Series P-25, No. 1018. Washington, DC: U.S. Department of Commerce, 1989.

Spiegler, M.D., and Guevremont, D.C. *Contemporary Behavior Therapy.* Pacific Grove, CA: Brooks/Cole, 1993.

Spitzer, R.L., and Williams, J.B. *Structured Clinical Interview for DSM-III (SCID).* New York: Biometrics Research Division, New York State Psychiatric Institute, 1985.

Spitzer, R.L.; Williams, J.B.; Gibbon, M.; and First, M.B. The Structured Clinical Interview for DSM-III-R (SCID): I. History, rationale, and description. *Archives of General Psychiatry* 49:624–629, 1992.

Srivastava, L.M.; Vasisht, S.; Agarwal, D.P.; and Goedde, H.W. Relation between alcohol intake, lipoproteins and coronary artery disease: The interest continues. *Alcohol and Alcoholism* 29:11–24, 1994.

Stall, R. Change and stability in quantity and frequency of alcohol use among aging males: A 19-year follow-up study. *British Journal of Addiction* 81:537–544, 1986.

Stewart, A.L.; Hays, R.D.; Ware, J.E., Jr. The MOS Short-Form General Health Survey: Reliability and validity in a patient population. *Medical Care* 26:724–735, 1988.

Stinson, F.S.; Dufour, M.C.; and Bertolucci, D. Alcohol-related morbidity in the aging population. *Alcohol Health and Research World* 13:80–87, 1989.

Strang J., and Gurling, H. Computerized tomography and neuropsychological assessment in long-term high-dose heroin addicts. *British Journal of Addiction* 84:1011–1019, 1989.

Swan, G.E.; Carmelli, D.; Rosenman, R.H.; Fabsitz, R.R.; and Christian, J.C. Smoking and alcohol consumption in adult male twins: Genetic heritability and shared environmental influences. *Journal of Substance Abuse* 2:39–50, 1990.

Tarlov, A.R.; Ware, J.E., Jr.; Greenfield, S.; Nelson, E.C.; Perrin, E.; and Zubkoff, M. The Medical Outcomes Study: An application of methods for monitoring the results of medical care. *Journal of the American Medical Association* 262:925–930, 1989.

Tarter, R.E. Cognition, aging, and alcohol. In: Beresford, T.P., and Gomberg, E., eds. *Alcohol and Aging*. New York: Oxford University Press, 1995. pp. 82–97.

Temple, M.T., and Leino, E.V. Long-term outcomes of drinking: A 20 year longitudinal study of men. *British Journal of Addiction* 84:889–899, 1989.

Thapa, P.B.; Gideon, P.; Fought, R.L.; and Ray, W.A. Psychotropic drugs and risk of recurrent falls in ambulatory nursing home residents. *American Journal of Epidemiology* 142(2):202–211, 1995.

Thomas-Knight, R. Treating alcoholism among the aged: The effectiveness of a special treatment program for older problem drinkers. *Dissertation Abstracts International* 39:3009, 1978.

Tobias, C.; Lippmann, S.; Pary, R.; Oropilla, T.; and Embry, C.K. Alcoholism in the elderly: How to spot and treat a problem the patient wants to hide. *Postgraduate Medicine* 86:67–70, 75–79, 1989.

Twerski, A.J. Early intervention in alcoholism: Confrontational techniques. *Hospital and Community Psychiatry* 34:1027–1030, 1983.

Tyas, S.L., and Rush, B.R. Trends in the characteristics of clients of alcohol/drug treatment in Ontario. *Canadian Journal of Public Health* 85:13–16, 1994.

U.S. Bureau of the Census. *65+ in the United States*. Current Population Reports, Special Stuides, Number P23-190. Washington, DC: U.S. Government Printing Office, 1996.

U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services*. Baltimore: Williams & Wilkins, 1996.

Vaillant, G.E.; Clark, W.; Cyrus, C.; Milofsky, E.S.; Kopp, J.; Wulsin, V.W.; and Mogielnicki, N.P. Prospective study of alcoholism treatment: Eight-year follow-up. *American Journal of Medicine* 75:455–460, 1983.

Vance, D.E. Barriers to use of services by older homeless people. *Psychological Reports* 75:1377–1378, 1994.

Velicer, W.F.; Prochaska, J.O.; Rossi, J.S.; and Snow, M.G. Assessing outcome in smoking cessation studies. *Psychological Bulletin* 111(1):23–41, January 1992.

Venner, A.M.; Krupka, L.R.; and Climo, J.J. Drug usage and health characteristics in noninstitutionalized retired persons. *Journal of the American Geriatrics Society* 27:83–90, 1980.

Vestal, R.E.; McGuire, E.A.; Tobin, J.D.; Andres, R.; Norris, A.H.; and Mezey, E. Aging and ethanol metabolism. *Clinical Pharmacology and Therapeutics* 21:343–354, 1977.

Victor, M.; Adams, R.C.; and Collins, G.H. *The Wernicke-Korsakoff Syndrome and Related Neurological Disorders Due to Alcoholism and Malnutrition*, 2nd ed. Philadelphia: F.A. Davis, 1989.

Vogel-Sprott, M., and Barret, P. Age, drinking habits, and the effects of alcohol. *Journal of Studies on Alcohol* 45:517–521, 1984.

Wagman, A.M.; Allen, R.P.; and Upright, D. Effects of alcohol consumption upon parameters of ultradian sleep rhythms in alcoholics. *Advances in Experimental Medicine and Biology* 85A:601–616, 1977.

Wallace, P.; Cutler, S.; and Haines A. Randomized controlled trial of general practitioner intervention in patients with excessive alcohol consumption. *British Medical Journal* 297(6649):663–668, 1988.

Wallace, P., and Haines, A. Use of a questionnaire in general practice to increase the recognition of patients with excessive alcohol consumption. *British Medical Journal* 290:1949–1953, 1985.

Ware, J.E., Jr., and Sherbourne, C.D. The MOS 36-Item Short-Form Health Survey (SF-36): I. Conceptual framework and item selection. *Medical Care* 30:473–481, 1992.

Watson, Y.I.; Arfken, C.L.; and Birge, S.J. Clock completion: An objective screening test for dementia. *Journal of the American Geriatrics Society* 41:1235–1240, 1993.

Waugh, M.; Jackson, M.; Fox, F.A.; Hawke, S.H.; and Tuck, R.R. Effect of social drinking on neuropsychological performance. *British Journal of Addiction* 84:659–667, 1989.

Weintraub, M., and Handy, B.M. Benzodiazepines and hip fractures: The New York State experience. *Clinical Pharmacology Therapy* 54(3):252–256, 1993.

Weiss, K.J. Management of anxiety and depression syndromes in the elderly. *Journal of Clinical Psychiatry* 55(suppl. 2):5–12, 1994.

Wells, K.B.; Burnam, M.A.; Benjamin, B.; and Golding, J.M. Alcohol use and limitations in physical functioning in a sample of the Los Angeles general population. *Alcohol and Alcoholism* 25:673–684, 1990.

Welte, J.W., and Mirand, A.L. *Alcohol Use by the Elderly: Patterns and Correlates: A Report on the Erie County Elder Drinking Survey*. Buffalo, NY: Research Institute on Addictions, October 1992.

Wiens, A.N.; Menustik, C.E.; Miller, S.L.; and Schmitz, R.E. Medical–behavioral treatment of the older alcoholic patient. *American Journal of Drug and Alcohol Abuse* 9(4):461–475, 1982/1983.

Willcox, S.M.; Himmelstein, D.U.; and Woolhandler, S. Inappropriate drug prescribing for the community-dwelling elderly. *Journal of the American Medical Association* 272(4):292–296, 1994.

Wilsnack, S.C., and Wilsnack, R.W. Drinking and problem drinking in U.S. women: Patterns and recent trends. *Recent Developments in Alcoholism* 12:29–60, 1995.

Wilsnack, S.C.; Vogeltanz, N.D.; Diers, L.E.; and Wilsnack, R.W. Drinking and problem drinking in older women. In: Bersford, T., and Gomberg, E., eds. *Alcohol and Aging.* New York: Oxford University Press, 1995. pp. 263–292.

Winger, G. Other abused drugs: Benzodiazepines and sedatives. In: *Fourth Triennial Report to Congress on Drug Abuse and Drug Abuse Research From the Secretary, Department of Health and Human Services.* Rockville, MD: U.S. Department of Health and Human Services. 1993.

Wolfe, S.M.; Fugate, L.; Hulstrand, E.P.; and Kamimoto, L.E. *Worst Pills, Best Pills: The Older Adult's Guide to Avoiding Drug-Induced Death or Illness.* Washington, DC: Public Citizen Health Research Group, 1988.

Woods, J.H., and Winger, G. Current benzodiazepine issues. *Psychopharmacology* 118:107–115, 1995.

World Health Organization. *International Classification of Disease,* 10th rev. Geneva, Switzerland: World Health Organization, 1992.

Wysowski, D.K.; Baum, C.; Ferguson, W.J.; Lundin, F.; Ng, M.J.; and Hammerstrom, T. Sedative-hypnotic drugs and risk of hip fracture. *Journal of Clinical Epidemiology* 49(1):111–113, 1996.

Yesavage, J.A.; Brink, T.L.; Rose, T.L.; Lum, O.; Huang, V.; Adey, M.; and Leirer, V.O. Development and validation of a geriatric depression scale. *Journal of Psychiatric Research* 17:31–49, 1983.

Zimberg, S. Two types of problem drinkers: Both can be managed. *Geriatrics* 29:135–139, 1974.

Appendix D
Resource Panel

Kathleen Austin, CDC III, NCAC II
Alcohol Therapist II
Adult Medicine/Ambulatory Care
Harborview Medical Center
Seattle, Washington

James D. Baxendale, Ph.D.
Deputy Director
Quality Assurance and Case Management
National Association of State Alcohol and Drug Abuse Directors
Washington, D.C.

Gwendolyn G. Bennett
Special Assistant to the Director
Division of State and Community Systems Development
Center for Mental Health Services
Rockville, Maryland

Gayle Boyd, Ph.D.
Health Scientist Administrator
Prevention Research Branch
National Institute on Alcohol Abuse and Alcoholism
Rockville, Maryland

Mildred Brooks-McDow, M.S.W., L.I.C.S.W.
Public Health Advisor
Division of State and Community Systems Development
Center for Mental Health Services
Rockville, Maryland

Carol Cober
Acting Manager
Social Outreach and Support Division
American Association of Retired Persons
Washington, D.C.

Peter J. Cohen, M.D., J.D.
Special Expert
Medications Development Division
National Institute on Drug Abuse
Rockville, Maryland

Dorynne Czechowicz, M.D.
Associate Director
Medical/Professional Affairs
Treatment Research Branch
Division of Clinical and Services Research
National Institute on Drug Abuse
Rockville, Maryland

Betty Davis
Senior Project Specialist
Social Outreach and Support Division
American Association of Retired Persons
Washington, D.C.

Loretta Finnegan, M.D.
Director
Women's Health Initiative
National Institutes of Health
Bethesda, Maryland

Linda S. Foley, M.A.
Member
TIPS Editorial Advisory Board
Director
Treatment Improvement Exchange
Health Systems Research, Inc.
Washington, D.C.

Rizalina C. Galicinao
Program Analyst
Office of Minority Health
Public Health Service
Rockville, Maryland

Deborah Horan
Manager
Special Issues
American College of Obstetrics and Gynecology
Washington, D.C.

Alixe McNeill
Senior Program Manager
National Council on the Aging
Washington, D.C.

Reba L. Novich, M.S.W.
Resource Manager
National Resource Center
Osteoporosis and Related Bone Diseases
Washington, D.C.

Hila Richardson, Dr.P.H.
Deputy Director
Medical Research and Practice Policy
National Center on Addiction and Substance Abuse
Columbia University
New York, New York

Anita Rosen, Ph.D.
Senior Staff Associate for Aging
National Association of Social Workers
Washington, D.C.

Eleanor Sargent
Director
Clinical Issues
National Association of Alcoholism and Drug Abuse Counselors
Arlington, Virginia

Joanne G. Schwartzberg, M.D.
Director
Department of Geriatric Health
American Medical Association
Chicago, Illinois

Doralie L. Segal, M.S.
Senior Advisor
PHS Office of Women's Health
Medical Development Division
National Institute on Drug Abuse
Rockville, Maryland

Nancy J. Wartow
Policy Specialist
Administration on Aging
Washington, D.C.

Paul Wohlford, Ph.D.
Acting Branch Chief
Division of State and Community Systems Development
Center for Mental Health Services
Rockville, Maryland

Appendix E
Field Reviewers

Ruth Airey-Vidal
Coordinator
Wellness Initiative for Senior Educators
Sussex Council on Alcohol and Drug Abuse
Newton, New Jersey

Sharon Amatteti
Public Health Analyst
Office of Policy Coordination and Planning
Center for Substance Abuse Treatment
Rockville, Maryland

Mary Candace Burger, Ph.D.
Assistant Professor
Division of Geriatric Psychiatry
Department of Psychiatry
Vanderbilt Medical School
Nashville, Tennesee

James Donagher
Director
Senior Services
Special Populations of Office of Behavioral Health
Department of Mental Health and Addiction Services
Hartford, Connecticut

Charles M. Donahue, M.Div.
Community Liaison
Behavioral Health Network
Alexian Brothers Hospital
Saint Louis, Missouri

Nancy L. Erckenbrack
Regional Director
Operations and Housing
Long-Term Care Division
Providence Health Systems
Portland, Oregon

Hugh Everman
Staff Assistant
Department of Sociology
Morehead State University
Morehead, Kentucky

Robert S. Geissinger
Counselor
Division of Alcoholism and Substance Abuse
Washington State Department of Social and Health Services
Lacey, Washington

Charles V. Giannasio, M.D.
Senior Consultant for Addictive Disorders
Northwest Institute of Psychiatry
Jenkintown, Pennsylvania

Robert K. Heaton, Ph.D.
Professor of Psychiatry
Neuropsychology Laboratory
University of California at San Diego
San Diego, California

Robert Holden, M.A.
Program Director
Partners in Drug Abuse Rehabilitation Counseling
Washington, D.C.

Ronald J. Hunsicker
Executive Director
National Association of Addiction Treatment Providers
Lititz, Pennsylvania

Carol L. Joseph, M.D.
Associate Chief
Staff for Geriatric and Extended Care
Honolulu VAMROC
Honolulu, Hawaii

Joseph Liberto, M.D.
Director
UAMC
Baltimore, Maryland

Jane E. Myers, Ph.D.
Professor
Department of Counseling and Educational Development
University of North Carolina at Greensboro
Greensboro, North Carolina

Reba L. Novich, M.S.W.
Resource Manager
National Resource Center
Osteoporosis and Related Bone Diseases
Washington, D.C.

Robert Rawlings
Director
OBRA and LTC
Community Programs
Oklahoma Department of Mental Health and Substance Abuse Services
Oklahoma City, Oklahoma

Patricia Reihl
Coordinator
Spring House
Paramus, New Jersey

Anita Rosen, Ph.D.
Senior Staff Associate for Aging
National Association of Social Workers
Washington, D.C.

Margaret M. Salinger, M.S.N., R.N., C.A.R.N.
National Nurses Society on Addiction
c/o Department of Veterans Affairs Medical Center
Coatesville, Pennsylvania

Eleanor Sargent
Director
Clinical Issues
National Association of Alcoholism and Drug Abuse Counselors
Arlington, Virginia

Timothy M. Scanlan
President
Addiction Specialists of Kansas
Wichita, Kansas

Larry I. Schonfeld, Ph.D.
Professor
Department of Aging and Mental Health
Florida Mental Health Institute
University of South Florida
Tampa, Florida

Anthony Sims
Acting Director
Office of Communications and External Liaison
Center for Substance Abuse Treatment
Rockville, Maryland

Richard T. Suchinsky, M.D.
Associate Chief
Addictive Disorders
Mental Health and Behavioral Sciences Services
Department of Veterans Affairs
Washington, D.C.

David O. Turner
Program Manager
Health Aging Program
Salt Lake County Aging Services
Salt Lake City, Utah

John W. Welte, Ph.D.
Research Scientist
Research Institute on Addiction
Buffalo, New York

Larry W. Whorley
Program Coordinator
Substance Abuse Treatment Program
Lexington, Kentucky

The TIPs Series

TIP 1 *State Methadone Treatment Guidelines* **BKD98**
TIP 2 *Pregnant, Substance-Using Women* **BKD107**
TIP 3 *Screening and Assessment of Alcohol- and Other Drug-Abusing Adolescents* **BKD108**
TIP 4 *Guidelines for the Treatment of Alcohol- and Other Drug-Abusing Adolescents* **BKD109**
TIP 5 *Improving Treatment for Drug-Exposed Infants* **BKD110**
TIP 6 *Screening for Infectious Diseases Among Substance Abusers* **BKD131**
TIP 7 *Screening and Assessment for Alcohol and Other Drug Abuse Among Adults in the Criminal Justice System* **BKD138**
TIP 8 *Intensive Outpatient Treatment for Alcohol and Other Drug Abuse* **BKD139**
TIP 9 *Assessment and Treatment of Patients with Coexisting Mental Illness and Alcohol and Other Drug Abuse* **BKD134**
TIP 10 *Assessment and Treatment of Cocaine-Abusing Methadone-Maintained Patients* **BKD157**
TIP 11 *Simple Screening Instruments for Outreach for Alcohol and Other Drug Abuse and Infectious Diseases* **BKD143**
TIP 12 *Combining Substance Abuse Treatment With Intermediate Sanctions for Adults in the Criminal Justice System* **BKD144**
TIP 13 *The Role and Current Status of Patient Placement Criteria in the Treatment of Substance Use Disorders* **BKD161**
TIP 14 *Developing State Outcomes Monitoring Systems for Alcohol and Other Drug Abuse Treatment* **BKD162**
TIP 15 *Treatment for HIV-Infected Alcohol and Other Drug Abusers* **BKD163**
TIP 16 *Alcohol and Other Drug Screening of Hospitalized Trauma Patients* **BKD164**
TIP 17 *Planning for Alcohol and Other Drug Abuse Treatment for Adults in the Criminal Justice System* **BKD165**
TIP 18 *The Tuberculosis Epidemic: Legal and Ethical Issues for Alcohol and Other Drug Abuse Treatment Providers* **BKD173**
TIP 19 *Detoxification from Alcohol and Other Drugs* **BKD172**
TIP 20 *Matching Treatment to Patient Needs in Opioid Substitution Therapy* **BKD168**
TIP 21 *Combining Alcohol and Other Drug Abuse Treatment With Diversion for Juveniles in the Justice System* **BKD169**
TIP 22 *LAAM in the Treatment of Opiate Addiction* **BKD170**
TIP 23 *Treatment Drug Courts: Integrating Substance Abuse Treatment With Legal Case Processing* **BKD205**
TIP 24 *A Guide to Substance Abuse Services for Primary Care Clinicians* **BKD234**
TIP 25 *Substance Abuse Treatment and Domestic Violence* **BKD239**
TIP 26 *Substance Abuse Among Older Adults* **BKD250**

Other TIPs may be ordered by contacting the National Clearinghouse for Alcohol and Drug Information (NCADI), (800) 729-6686 or (301) 468-2600; TDD (for hearing impaired), (800) 487-4889.

DHHS Publication No. (SMA) 98-3179
Substance Abuse and Mental Health Services Administration
Printed 1998

SAMHSA

BEST COPY AVAILABLE